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Mathematical Reviews

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Annual Index – 1980

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Index of Mathematical Papers Volume 12
Published by the American Mathematical Society
Providence, Rhode Island USA
ISSN 0025-5629

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(As used in Mathematical Reviews beginning in 1980)

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60-04 Explicit machine computation and programs (not the theory of computation or programming)

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Landers, Dieter (*with* Rogge, Lothar) Characterization of p-predictors. **(80f:47063)**
LePage, Raoul A maximal equality and its application in vector spaces. **(80d:60062)**
Ramachandran, D. Existence of independent complements in regular conditional probability spaces. **(80d:28005)**
Perfect mixtures of perfect measures. **(80d:28015)**
Rogge, Lothar *See* **Landers, Dieter, (80f:47063)**
Troallic, Jean-Pierre *See* **Hansel, G., (80f:28005)**

60A99 None of the above, but in this section

Ivan, Florea Boolean algebras with probability. I. (Romanian. French summary) **80f:60001**
Khalil, Siamak Independent fuzzy events. **80e:60004**
Nguyen, Hung Trung On conditional possibility distributions. **80c:60010**

Secondary classifications:

Baldwin, J. F. (*with* Pilsworth, B. W.) A theory of fuzzy probability. **(80m:94119)**
Damianou, Ch. *See* **Kounias, Eustratios G., (80h:60019)**
Fishburn, Peter C. Stochastic dominance without transitive preferences. **(80c:90007)**
Kounias, Eustratios G. (*with* Damianou, Ch.) On an inequality in probability. **(80h:60019)**
Nguyen, Hung Trung Toward a calculus of the mathematical notion of possibility. **(80m:03090)**
Pilsworth, B. W. *See* **Baldwin, J. F., (80m:94119)**

60Bxx Probability theory on algebraic and topological structures

Secondary classifications:

Bellow, Alexandra Mesures de Radon et espaces relèvement compacts. (English summary) **(80j:28019)**
(Weron, Aleksander) *See* **Probability theory on vector spaces, (80c:60008)**
Conference:
Probability Theory on Vector Spaces *See* **Probability theory on vector spaces, (80c:60008)**
Probability theory on vector spaces ★Probability theory on vector spaces. **(80c:60008)**
Trzebiatowice *See* **Probability theory on vector spaces, (80c:60008)**
Vector spaces *See* **Probability theory on vector spaces, (80c:60008)**

60B05 Probability measures on topological spaces

Bru, Bernard (*with* Heinich, Henri) Sur l'espérance des variables aléatoires vectorielles. (English summary) **80c:60011**
Heinich, Henri *See* **Bru, Bernard, 80c:60011**
Kučkarov, Ja. H. Estimation of the closeness of two distributions with values in a semifield. I. (Russian) **80a:60007a**
Estimation of the closeness of two distributions with values in a semifield. II. (Russian) **80a:60007b**
Schay, Geza Optimal joint distributions of several random variables with given marginals. **80h:60005a**
Erratum: "Optimal joint distributions of several random variables with given marginals" [Stud. Appl. Math. 61 (1979), no. 2, 179–183]. **80h:60005b**

Secondary classifications:

Čobanjan, S. A. *See* **Gorgadze, Z. G.; et al., (80a:60042)**
Daffer, Peter Z. (*with* Taylor, Robert L.) Laws of large numbers for $D[0, 1]$. **(80h:60045)**
Gorgadze, Z. G. (*with* Tarieladze, V. I.; Čobanjan, S. A.) Gaussian covariances in Banach sublattices of the space $L_0(T, \Sigma, \nu)$. (Russian) **(80a:60042)**
Tarieladze, V. I. *See* **Gorgadze, Z. G.; et al., (80a:60042)**
Taylor, Robert L. *See* **Daffer, Peter Z., (80h:60045)**

60B10 Convergence of probability measures

Akbarov, M. The uniform density of probability measures and the central limit theorem. (Russian) **80e:60005**
Akritas, M. G. (*with* Roussas, George G.) Sample size, parameter rates and contiguity—the i.n.n.i.d. case. **80i:60002**
Berkes, István (*with* Philipp, Walter) Approximation theorems for independent and weakly dependent random vectors. **80k:60008**
Gorodeckiĭ, V. V. Letter to the editors: "Convergence to semistable Gaussian processes" [Teor. Verojatnost. i Primenen. 22 (1977), no. 3, 513–522; MR 56 #13303]. (Russian) **80k:60009**
Grishkat, L. Š. Convergence of random processes and of probability measures. **80j:60005**
Convergence of measurable random functions. **80f:60005**
Jacob, Pierre Convergence uniforme à distance finie de mesures positives. (English summary) **80d:60009**
Sur diverses convergences stochastiques des processus ponctuels composés. (English summary) **80d:60010**
Miller, Douglas R. (*with* Sentilles, F. Dennis) Weak convergence of probability measures relative to incompatible topology and σ-field with applications to renewal theory. **80b:60008**
Mukhtari, D. H. Lévy type criteria for the weak convergence of probabilities in Fréchet spaces. (Russian. English summary) **80j:60006**
Pellaumail, Jean Convergence en règle. (English summary) **80m:60008**
Peyrière, Jacques A singular random measure generated by splitting [0, 1]. **80f:60006**
Philipp, Walter *See* **Berkes, István, 80k:60008**
Rebolledo, Rolando Sur les temps d'arrêt et la topologie étroite. (English summary) **80k:60010**
Martingales et convergence étroite de mesures de probabilité. **80j:60007**
Roussas, George G. *See* **Akritas, M. G., 80i:60002**
Sato, Ken-Iti A note on convergence of probability measures on C and D. **80j:60008**
Sentilles, F. Dennis *See* **Miller, Douglas R., 80b:60008**
Stadje, Wolfgang Eine Bemerkung zum Zusammenhang von stochastischer und schwacher Konvergenz. **80j:60009**

Secondary classifications:

Bolthausen, Erwin Weak convergence of an empirical process indexed by the closed convex subsets of I^2. **(80d:60024)**
Caby, Errol The weak convergence of uniform measures. **(80f:28013)**
Ethier, S. N. Limit theorems for absorption times of genetic models. **(80k:60045)**
Flam, Sjur D. On conditional compactness in the space of probability measures. **(80k:28017)**
Groeneboom, P. (*with* Oosterhoff, J.; Ruymgaart, F. H.) Large deviation theorems for empirical probability measures. **(80i:60030)**
Heinkel, Werner E. On Gaussian measures and the central limit theorem in certain F-spaces. **(80e:60006)**
LePage, Raoul A maximal equality and its application in vector spaces. **(80d:60062)**
Loeb, Peter A. Weak limits of measures and the standard part map. **(80i:28020)**
Oosterhoff, J. *See* **Groeneboom, P.; et al., (80i:60030)**
Preda, Vasile On the intrinsic convergence. **(80i:28014)**
Ruymgaart, F. H. *See* **Groeneboom, P.; et al., (80i:60030)**

60B11 Probability theory on linear topological spaces [See also 28C20.]

Aldous, D. J. Unconditional bases and martingales in $L_p(F)$. **80b:60009**
Baranska, Jadwiga Universal Doeblin distributions in a Hilbert space. (Russian summary) **80b:60010**
Borell, Christer A note on conditional probabilities of a convex measure. **80c:60012**
Bozorgnia, A. (*with* Rao, M. Bhaskara) On weak orthogonality and a strong law of large numbers. (Russian summary) **80i:60003**
Byczkowski, T. Norm convergent expansion for L_0-valued Gaussian random elements. **80h:60006**
Carmona, René (*with* Chevet, Simone) Tensor Gaussian measures on $L^p(E)$. **80j:60010**
Chaurasia, A. R. Infinitely divisible distributions in L^2. (Hindi. English summary) **80h:60007**
Chevet, Simone *See* **Carmona, René, 80j:60010**
Chung, Dong M. Characterizations of self-decomposable probability measures on LCTVS. **80f:60007**
Dale, A. I. Hájek-Rényi type inequalities for random elements. **80h:60008**
Heinkel, Werner E. On Gaussian measures and the central limit theorem in certain F-spaces. **80e:60006**
Hwang, Chil Ruey Gaussian measure of large balls in a Hilbert space. **80j:60011**
Inglot, T. An elementary approach to the zero-one laws for Gaussian measures. **80j:60012**
Jajte, Ryszard On a class of infinitely divisible measures in Orlicz spaces. **80m:60009**
Jurek, Zbigniew J. Intersection of the classes of S-selfdecomposable and S-semi-stable distributions. **80d:60011**
Korzeniowski, Andrzej An analog of Itô and Nisio's theorem for weak martingales in Banach spaces. (Russian summary) **80i:60004**
Krakowiak, Wiesław Zero-one laws for stable and semistable measures on Banach spaces. (Russian summary) **80i:60005**
Krée, Paul Methods of functional analysis in the study of random phenomena. **80f:60008**
Kumar, Arunod (*with* Schreiber, Bertram M.) Representation of certain infinitely divisible probability measures on Banach spaces. **80j:60013**

Mandrekar, V. Characterization of Banach space through validity of Bochner theorem. **80k:60011**

Nguen Zui Tien The structure of measurable linear functionals on Banach spaces with Gaussian measures. (Russian. English summary) **80f:60009**

Paulauskas, V. I. Infinitely divisible and stable laws in separable Banach spaces. I. (Russian. Lithuanian and English summaries) **80e:60007**

Pinelis, I. F. Distribution of sums of independent random variables with values in a Banach space. (Russian. English summary) **80f:60010**

Rao, M. Bhaskara *See* **Bozorgnia, A., 80i:60003**

Sato, Hiroshi Hilbertian support of a probability measure on a Banach space. **80j:60014**

Schreiber, Bertram M. *See* **Kumar, Arunod, 80j:60013**

Suchanek, Ana María On almost sure convergence of Cesàro averages of subsequences of vector-valued functions. **80d:60012**

Sudakov, V. N. Typical distributions of linear functionals in finite-dimensional spaces of high dimension. (Russian) **80b:60011**

A remark on convergence in a limit theorem for distributions of random functionals. (Russian. English summary) **80m:60010**

Takahashi, Yasuji Partially admissible shifts on linear topological spaces. **80m:60011**

Tortrat, Albert Atomes et lois indéfiniment divisibles dans un espace vectoriel. (English summary) **80e:60008**

Second complément sur le support des lois indéfiniment divisibles. (English summary) **80e:60009**

Uglanov, A. V. On a class of Hilbert measures. (Russian) **80j:60015**

Secondary classifications:

Baker, Charles R. Conditions for absolute continuity. **(80g:60039)**

Bilopol's'ka, Ja. Ì. (*with* Dalec'kiĭ, Ju. L.) Diffusion processes in smooth Banach spaces and manifolds. I. (Russian) **(80h:60098)**

Bru, Bernard Espérance d'ordre. (English summary) **(80m:28012)**

Byczkowski, T. Some results concerning Gaussian measures on metric linear spaces. **(80j:60021)**

Dalec'kiĭ, Ju. L. *See* **Bilopol's'ka, Ja. Ì., (80h:60098)**

Gattinger, Matthias Representation theorems for operators and measures on abstract Wiener spaces. **(80d:28031)**

Kuelbs, James Rates of growth for Banach space valued independent increment processes. **(80i:60051)**

Kuo, Hui Hsiung An example of quasi-invariant cylindrical measure. **(80d:28032)**

Kvarachellja, V. V. Unconditional convergence in a Banach space. (Russian. Georgian and English summaries) **(80g:46015)**

Lifšic, M. A. The representation of Lévy fields by indicators. (Russian. English summary) **(80h:60073)**

Linde, Werner Gaussian measures on Banach spaces. **(80d:47032)**

Maeda, Michie The cylindrical measures on some Banach space. **(80b:28015)**

Muštari, D. H. Some questions of the theory of dual-Radon mappings. (Russian) **(80c:47019)**

Noverraz, Philippe Gaussian measure of polar sets in separable Banach spaces. **(80k:28015)**

Pisier, Gilles Ensembles de Sidon et espaces de cotype 2. **(80b:43010)**

Potocký, Rastislav On random variables having values in a vector lattice. (Russian summary) **(80f:28011)**

Schmidt, Klaus Sur la valeur d'un processus de fonctions d'ensembles. (English summary) **(80m:60068)**

Urbanik, K. Lévy's probability measures on Banach spaces. **(80g:60007)**

Vladimirskiĭ, Ju. N. On conditions for extendibility of a cylindrical measure in a conjugate Banach space to Radon measure. (Russian. English summary) **(80h:28019)**

Some topological properties of countably additive cylindrical measures. (Russian. English summary) **(80h:28020)**

Woyczyński, Wojbor A. Geometry and martingales in Banach spaces. II. Independent increments. **(80d:46035)**

60B12 Limit theorems for vector-valued random variables (infinite-dimensional case)

de Acosta, Alejandro (*with* Araujo, Aloisio; Giné M., Evarist) On Poisson measures, Gaussian measures and the central limit theorem in Banach spaces. **80h:60009**

On the general converse central limit theorem in Banach spaces. **80a:60010**

(*with* Giné M., Evarist) Convergence of moments and related functionals in the general central limit theorem in Banach spaces. **80h:60011**

Araujo, Aloisio On the central limit theorem in Banach spaces. **80b:60012**

(*with* Giné M., Evarist) On tails and domains of attraction of stable measures in Banach spaces. **80f:60011**

See also **de Acosta, Alejandro; et al., 80h:60009**

Azlarov, T. A. (*with* Volodin, N. A.) The strong law of large numbers for random variables with values in a Banach space. (Russian) **80b:60013**

Beck, Anatole On the covariance tensor. **80f:60012**

Bozorgnia, A. A weak law of large numbers for sequences of pairwise independent identically distributed random elements. **80g:60005**

(*with* Rao, M. Bhaskara) Some remarks on the strong law of large numbers for Banach-space valued weakly integrable random variables. **80d:60014**

(*with* Rao, M. Bhaskara) A strong law of large numbers for subsequences of random elements in separable Banach spaces. **80b:60014**

(*with* Rao, M. Bhaskara) On summability methods and limit theorems for Banach space valued random variables. **80d:60013**

Čebotarev, V. I. Estimates of the rate of convergence in the central limit theorem in l_p. (Russian) **80j:60016**

Chang, Mou Hsiung A random walk and its LIL in a Banach space. **80b:60015**

Chatterji, S. D. Le principe de sous-suites dans les espaces de Banach. **80i:60006**

Čobanjan, S. A. (*with* Tarieladze, V. I.) A counter-example concerning CLT in Banach spaces. **80d:60015**

Daffer, Peter Z. *See* **Taylor, Robert L., 80e:60010**

Deo, Chandrakant M. On a random series in a Hilbert space. (French summary) **80c:60013**

Dineen, Seán Zero one laws for probability measures on locally convex spaces. **80j:60017**

Garling, D. J. H. Subsequence principles for vector-valued random variables. **80h:60012**

Giné M., Evarist A survey on the general central limit problem in Banach spaces. **80d:60016**

Domains of attraction in Banach spaces. **80j:60018**

See also **Araujo, Aloisio, 80f:60011; de Acosta, Alejandro; et al., 80h:60009** *and* **de Acosta, Alejandro, 80h:60011**

Guerre, S. Procédé de convergence minimale dans les espaces de Banach. Une loi des grands nombres et un théorème ergodique. **80j:60019**

Hahn, Marjorie G. The generalized domain of attraction of a Gaussian law on Hilbert space. **80h:60013**

Heinkel, Bernard Quelques remarques relatives au théorème central-limite dans $C(S)$. **80i:60007**

Sur la loi du logarithme itéré dans les espaces de Banach. (English summary) **80f:60013**

Relation entre le théorème central-limite et la loi du logarithme itéré dans les espaces de Banach. (English summary) **80c:60014**

Relation entre théorème central-limite et loi du logarithme itéré dans les espaces de Banach. **80k:60012**

Heinz, Werner E. On the central limit theorem in F-spaces. **80a:60008**

Kuelbs, James Some recent results on the law of the iterated logarithm for Banach space valued random variables. **80d:60017**

(*with* Zinn, Joel) Some stability results for vector valued random variables. **80h:60014**

Kvarachelija, V. V. Unconditional convergence of Gaussian series. (Russian) **80c:60015**

Lapinskas, R. The approximation of partial sums in some Banach spaces. (Russian. Lithuanian and English summaries) **80a:60009**

Marcus, Michael B. (*with* Woyczyński, Wojbor A.) A necessary condition for the central limit theorem on spaces of stable type. **80c:60016**

Mogul'skiĭ, A. A. The law of the iterated logarithm in Chung's form for function spaces. (Russian. English summary) **80m:60012**

Padgett, W. J. (*with* Taylor, Robert L.) Convergence of weighted sums of independent random variables and an extension to Banach space valued random variables. **80i:60008**

Potocký, Rastislav The strong law of large numbers for o-convergent random variables. (Russian summary) **80c:60017**

Rajput, Balram (*with* Tortrat, Albert) Un théorème de probabilité zéro ou un dans un groupe mesurable ou topologique quelconque. (English summary) **80m:60013**

Rao, M. Bhaskara *See* **Bozorgnia, A., 80b:60014; Bozorgnia, A., 80d:60013** *and* **Bozorgnia, A., 80d:60014**

Šangua, A. G. Laws of large numbers in a Banach space. (Russian. Georgian and English summaries) **80h:60015**

The law of large numbers in a Banach space. (Russian. Georgian and English summaries) **80j:60020**

Tarieladze, V. I. *See* **Čobanjan, S. A., 80d:60015**

Taylor, Robert L. ★Stochastic convergence of weighted sums of random elements in linear spaces. **80g:60006**

(*with* Daffer, Peter Z.) Some weak laws of large numbers for probability measures on vector spaces. **80e:60010**

(*with* Wei, Duan) Laws of large numbers for tight random elements in normed linear spaces. **80c:60018**

See also **Padgett, W. J., 80i:60008**

Tortrat, Albert *See* **Rajput, Balram, 80m:60013**

Urbanik, K. Lévy's probability measures on Banach spaces. **80g:60007**

Volodin, N. A. *See* **Azlarov, T. A., 80b:60013**

Wei, Duan *See* **Taylor, Robert L., 80c:60018**

Woyczyński, Wojbor A. *See* **Marcus, Michael B., 80c:60016**

Zinn, Joel *See* **Kuelbs, James, 80h:60014**

Secondary classifications:

Bahadur, R. R. (*with* Zabell, Sandy) Large deviations of the sample mean in general vector spaces. **(80i:60031)**

Borovkov, A. A. (*with* Mogul'skiĭ, A. A.) Probabilities of large deviations in topological spaces. I. (Russian) **(80c:60045)**

Bozorgnia, A. (*with* Rao, M. Bhaskara) On weak orthogonality and a strong law of large numbers. (Russian summary) **(80i:60003)**

Byczkowski, T. Norm convergent expansion for L_Φ-valued Gaussian random elements. **(80h:60006)**

Dorogovcev, A. Ja. (*with* Knopov, P. S.) The weak convergence of a sequence of two-parameter martingales. (Russian. English summary) **(80c:60066)**

Knopov, P. S. *See* **Dorogovcev, A. Ja., (80c:60066)**

Mogul'skiĭ, A. A. *See* **Borovkov, A. A., (80c:60045)**

Osipov, L. V. On probabilities of large deviations for sums of independent random vectors. (Russian. English summary) **(80c:60046)**

Rao, M. Bhaskara *See* **Bozorgnia, A., (80i:60003)**

Šiganov, I. S. Some estimates of the accuracy of approximation in the multidimensional central limit theorem. (Russian. English summary) **(80i:60029)**

Woyczyński, Wojbor A. Geometry and martingales in Banach spaces. II. Independent increments. **(80d:46035)**

Zabell, Sandy *See* **Bahadur, R. R., (80i:60031)**

60B15 Probability measures on groups, Fourier transforms, factorization

Baldi, P. Lois stables sur les déplacements de $\mathbf{R}^d$. **80g:60008**

Bougerol, Philippe Fonctions de concentration sur certains groupes localement compacts. **80e:60011**

Un théorème central limite local sur les groupes de Lie semi-simples. (English summary) **80c:60019**

Byczkowski, T. Some results concerning Gaussian measures on metric linear spaces. **80j:60021**
Gaussian measures on metric abelian groups. **80k:60013**

Center, Barbara (*with* Mukherjea, Arunava) More on limit theorems for iterates of probability measures on semigroups and groups. **80h:60016**

Chow, H. L. Idempotent probability measures on locally compact semigroups. **80h:60017**

Crépel, Pierre Grenzwertsätze für abhängige Zufallsvariable und Irrfahrten auf Gruppen. **80g:60009**

Fel'dman, G. M. Gaussian distributions on locally compact abelian groups. (Russian. English summary) **80b:60016**

Fereig, Nabil' (*with* Molčanov, S. A.) Random walks on abelian groups with an infinite number of generators. (Russian. English summary) **80e:60012**

Gerl, Peter Eine asymptotische Auswertung von Faltungspotenzen in gewissen Gruppen. **80d:60018**
Ein Konvergenzsatz für Faltungspotenzen. **80j:60022**
Ein Gleichverteilungssatz auf F_2. **80m:60014**

Hazod, W. Subordination von Faltungs- und Operatorhalbgruppen. **80j:60023**

Herrmann, Horst (*with* Kerstan, Johannes; Liese, Friedrich) o-stetige Masse und asymptotische Gleichverteilung. **80m:60015**

Heyer, Herbert The embedding of probability measures on a locally compact group. **80e:60013**
Semi-groupes de convolution sur un groupe localement compact et applications à la théorie des probabilités. **80i:60009**

Kerstan, Johannes *See* **Herrmann, Horst; et al., 80m:60015**

Liese, Friedrich Charakterisierung einer Klasse von Entropiemaximalfolgen. **80e:60014**
See also **Herrmann, Horst; et al., 80m:60015**

Molčanov, S. A. *See* **Fereig, Nabil', 80e:60012**

Mukherjea, Arunava (*with* Sun, T. C.) Convergence of products of independent random variables with values in a discrete semigroup. **80b:60017**
Some remarks on limits of iterates of probability measures on groups and semigroups. **80g:60010**
See also **Center, Barbara, 80h:60016**

Parthasarathy, Kalyanapuram Rangachari Infinitely divisible distributions in $SL(k, \mathbf{C})$ or $SL(k, \mathbf{R})$ may be imbedded in dyadic convolution semigroups. **80k:60014**

Raugi, Albert Théorème de la limite centrale sur les groupes nilpotents. **80j:60035**
Quelques remarques sur le théorème de la limite centrale sur un groupe de Lie. (English summary) **80m:60016**

Sun, T. C. *See* **Mukherjea, Arunava, 80b:60017**

Teleman, Silviu On a theorem of P. Lévy. **80m:60017**

Trimèche, Khélifa Probabilités indéfiniment divisibles et théorème de la limite centrale pour une convolution généralisée sur la demi-droite. (English summary) **80b:60018**

Vircer, A. D. Matrix and operator random products. (Russian. English summary) **80h:60018**

Secondary classifications:

Berg, Christian Hunt convolution kernels which are continuous singular with respect to Haar measure. **(80j:31015)**

Butković, Davor On the summability of convolution sequences of measures. (Serbo-Croatian summary) **(80d:43001)**

Eshleman, Linda R. *See* **Lo, James Ting Ho, (80h:60058)**

Guivarc'h, Yves Marches aléatoires à pas markovien. (English summary) **(80i:60094)**
Marches aléatoires à pas markoviens. (English summary) **(80k:60088)**

Högnäs, Göran A note on the product of random elements of a semigroup. **(80b:60090)**
On recurrent random walks on abelian semigroups. **(80b:60092)**
On random walks with continuous components. **(80b:60091)**

Lo, James Ting Ho (*with* Eshleman, Linda R.) Exponential Fourier densities on SO(3) and optimal estimation and detection for rotational processes. **(80h:60058)**

Rajput, Balram (*with* Tortrat, Albert) Un théorème de probabilité zéro ou un dans un groupe mesurable ou topologique quelconque. (English summary) **(80m:60013)**

Raugi, Albert Théorème de la limite centrale sur les groupes extensions compactes d'un groupe de Lie résoluble connexe de type rigide. (English summary) **(80b:22015)**

Roynette, B. Marches aléatoires sur les groupes de Lie. **(80e:60087)**

Tortrat, Albert *See* **Rajput, Balram, (80m:60013)**

60B99 None of the above, but in this section

Bryc, W. (*with* Kwapień, S.) On the conditional expectation with respect to a sequence of independent σ-fields. **80e:60015**

Calabrese, Philip The probability of the triangle inequality in probabilistic metric spaces. **80g:60011**

Hess, Christian Théorème ergodique et loi forte des grands nombres pour des ensembles aléatoires. (English summary) **80b:60019**

Kamae, Teturo (*with* Krengel, Ulrich) Stochastic partial ordering. **80b:60020**

Krengel, Ulrich *See* **Kamae, Teturo, 80b:60020**

Kwapień, S. *See* **Bryc, W., 80e:60015**

Secondary classifications:

Abdurasulov, H. Brownian motion processes. (Russian) **(80c:60092)**

Höhle, Ulrich Probabilistische Metriken auf der Menge der nicht negativen Verteilungsfunktionen. **(80k:54057)**
Probabilistische Topologien. (English summary) **(80h:54005)**

Hudson, R. L. The strong Markov property for canonical Wiener processes. **(80c:81032)**

Moynihan, Richard Infinite τ_T products of distribution functions. **(80g:60030)**

Nikolić-Despotović, Danica Probabilistic metric spaces. (Serbo-Croatian) **(80i:54041)**

Suknabekov, F. F. Regular functions of a triangle. (Russian) **(80g:54057)**

60C05 Combinatorial probability

Ambrosimov, A. S. The distribution of the number of nonappearing lengths of cycles in a random mapping. (Russian) **80a:60010**

Bolotnikov, Ju. V. (*with* Sačkov, V. N.; Tarakanov, V. E.) Some classes of random variables on cyclic permutations. (Russian) **80e:60016**

Boyd, David W. (*with* Steele, J. Michael) Random exchanges of information. **80i:60010**

Čistjakov, V. P. *See* **Žukov, A. E., 80k:60016**

Damianou, Ch. *See* **Kounias, Eustratios G., 80h:60019**

Földes, Stéphane (*with* Gabor, G.) Note on discrete random walks. **80e:60017**

Gabor, G. *See* **Földes, Stéphane, 80e:60017**

Holst, Lars A unified approach to limit theorems for urn models. **80e:60018**

Ivanov, V. A. (*with* Terebulin, S. Ju.) Some limit theorems for a nonequiprobable scheme of group distribution of particles. (Russian. English summary) **80b:60021**

Kounias, Eustratios G. (*with* Damianou, Ch.) On an inequality in probability. **80k:60019**

Mahallov, V. G. *See* **Zubkov, A. M., 80a:60011**

Mutafčiev, Ljuben R. Cycles of random permutations in subsets of a symmetric group of high order. (Russian) **80k:60015**

Rüger, B. Das maximale Signifikanzniveau des Tests: "Lehne H_0 ab, wenn k unter n gegebenen Tests zur Ablehnung führen". (English summary) **80i:60011**

Sačkov, V. N. *See* **Bolotnikov, Ju. V.; et al., 80e:60016**

Srinivasan, R. On some results of Takács in ballot problems. **80i:60012**

Steele, J. Michael *See* **Boyd, David W., 80i:60010**

Takács, Lajos Fluctuation problems for Bernoulli trials. **80e:60019**

Tarakanov, V. E. *See* **Bolotnikov, Ju. V.; et al., 80e:60016**

Terebulin, S. Ju. *See* **Ivanov, V. A., 80b:60021**

Zubkov, A. M. (*with* Mahallov, V. G.) An estimate of the accuracy of the Poisson approximation in the problem of the distribution of particles into cells. (Russian. English summary) **80a:60011**

Žukov, A. E. Some theorems for a method of allocation by complexes. (Russian) **80g:60012**
(*with* Čistjakov, V. P.) Schemes of distributing complexes which can be approximated by multinomial schemes. (Russian) **80k:60016**

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Devitt, John S. An enumerative approach to a proolem in probability. **(80b:60047)**

Eplett, W. J. R. A note about the Catalan triangle. **(80i:05007)**

Erdős, Paul (*with* Spencer, Joel H.) Evolution of the n-cube. **(80g:05054)**

Grossman, Jerrold On methods of generating random permutations. **(80a:60002)**

Hamdan, M. A. A systematic approach to teaching counting formulae. (French summary) **(80a:60003)**

Hopfenmüller, W. A mathematical model for extrachromosomal heredity. (German summary) **(80b:92014)**

Kern, Malcolm (*with* Walter, Stanley) Ballot theorem and lattice path crossings. (French summary) **(80b:60093)**

Meir, A. (*with* Moon, J. W.) On the altitude of nodes in random trees. **(80k:05043)**

Mihailov, V. G. *See* **Zubkov, A. M., (80k:60034)**

Moon, J. W. *See* **Meir, A., (80k:05043)**

Nishi, Akihiro A note on Pólya's urn model. (Japanese) **(80m:60001)**

Quine, M. P. A functional central limit theorem for a generalized occupancy problem. **(80j:60042)**

Sačkov, V. N. ★Вероятностные методы в комбинаторном анализе. (Russian) [Probability methods in combinatorial analysis] **(80g:05002)**

Saran, Jagdish *See* **Sen, Kanwar, (80i:60095)**

Sen, Kanwar (*with* Saran, Jagdish) Joint distributions based on runs and on the number of sojourns and intersections. **(80i:60095)**

Spencer, Joel H. *See* **Erdős, Paul, (80g:05054)**

Takács, Lajos On an urn problem of Paul and Tatiana Ehrenfest. **(80i:60097)**

Walter, Stanley *See* **Kern, Malcolm, (80b:60093)**

Zubkov, A. M. (*with* Mihallov, V. G.) The repetitions of s-tuples in a sequence of independent trials. (Russian. English summary) **(80k:60034)**

60D05 Geometric probability, stochastic geometry, random sets [See also 52A22, 53C65.]

Ambarcumjan, R. V. Needles and wedges as tools for integration. **80b:60022**

Bucur, Constantin D. A new extension of the geometric probabilities of Buffon type in the Euclidean plane. (Romanian. French summary) **80h:60020**

Coleman, Rodney The stereological analysis of two-phase particles. **80b:60023**
★An introduction to mathematical stereology. **80k:60017**

Cressie, Noel A central limit theorem for random sets. **80m:60018**

El Hélou, Youssef ★Recouvrement du tore T^ν par des ouverts aléatoires et dimension de Hausdorff de l'ensemble non recouvert. **80i:60013**
Recouvrement du tore T^ν par des ouverts aléatoires et dimension de Hausdorff de l'ensemble non recouvert. (English summary) **80d:60019**

Fellous, A. (*with* Granara, J.; Krickeberg, Klaus) Statistica of stationary oriented line Poisson processes in the plane. **80b:60024**

Glaz, Joseph (*with* Naus, Joseph) Multiple coverage of the line. **80j:60024**

Granara, J. *See* **Fellous, A.; et al., 80b:60024**

Grimaldi, Valeria Problems of integral geometry in the projective space P_n. (Italian. French summary) **80e:60020**

Hensley, Douglas Slicing the cube in $\mathbf{R}^n$ and probability (bounds for the measure of a central cube slice in $\mathbf{R}^n$ by probability methods). **80b:60025**

Krickeberg, Klaus *See* **Fellous, A.; et al., 80b:60024**

(Maksimov, V. M.) *See* **Matheron, Georges, 80i:60014**

Mannion, David Random packing of an interval. II. **80i:60014**

Mase, Shigeru Random compact convex sets which are infinitely divisible with respect to Minkowski addition. **80b:60021**

Matheron, Georges ★Случайные множества и интегральная геометрия. (Russian)

[Random sets and integral geometry] **80f:60014**

Miles, Roger E. (*with* Serra, Jean) En Matière d'introduction. **80c:60020**
The importance of proper model specification in stereology. **80f:60015**
Some new integral geometric formulae, with stochastic applications. **80h:60022**

Moran, P. A. P. The closest pair of N random points on the surface of a sphere. **80k:60018**

Naus, Joseph *See* **Glaz, Joseph, 80j:60024**

(Nosko, V. P.) *See* **Matheron, Georges, 80f:60014**

Pfeifle, Frank Masse für gerichtete Geraden und nicht-symmetrische Pseudometriken in der Ebene. (English summary) **80a:60012**
The chord length distribution of the ellipse. (Lithuanian and Russian summaries) **80m:60019**

Raftery, Adrian Un problème de ficelle. (English summary) **80k:60019**

Rogers, L. C. G. The probability that two samples in the plane will have disjoint convex hulls. **80a:60013**

Ruben, Harold On the distance between points in polygons. **80b:60026**

Santaló, L. A. Random processes of linear segments and graphs. **80d:60020**

Serra, Jean *See* **Miles, Roger E., 80c:60020**

Siegel, Andrew F. Random arcs on the circle. **80a:60014**
Asymptotic coverage distributions on the circle. **80k:60020**

Solomon, Herbert (*with* Stephens, M. A.) Approximations to densities in geometric probability. **80k:60021**

Stephens, M. A. *See* **Solomon, Herbert, 80k:60021**

Streit, Franz Anisotropy and distance from the centre. Probabilistic models and statistical analysis. **80c:60021**
On a statistical approach to Bertrand's problem. **80f:60016**

Tanasi, Corrado Geometric probability of "Buffon" type on the unit sphere. (Italian. French summary) **80h:60023**

Vestergaard, P. D. How long is the chord? (Bertrand's paradox). (Danish. English summary) **80f:60015**

Watson, G. S. Characteristic statistical problems of stochastic geometry. **80c:60022**

Weil, Wolfgang Berührwahrscheinlichkeiten für konvexe Körper. **80f:60016**

Weiner, Howard J. Sequential random packing in the plane. **80a:60015**

Zoroa Terol, Procopio The problems of geometric probabilities. (Spanish) **80g:60013**

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Bodziony, Jakub (*with* Kraj, Władysław) Application of the method of coupled shadows to determine the surface area of convex polyhedrons. (Russian summary) **(80a:52010)**

Cirlincione, Leonardo Questions of integral geometry on the equilateral hyperbolas of the plane. (Italian. French summary) **(80f:53033)**

Cowan, Richard Homogeneous line-segment processes. **(80m:60064)**

Filipescu, Dumitru Une valeur moyenne pour l'intégrale de la courbure moyenne. (Romanian summary) **(80a:52005)**

Gates, D. J. (*with* Westcott, Mark) Zone of influence models for competition in plantations. **(80a:60134a)**
(*with* Westcott, Mark) Spatial competition in plantations. **(80a:60134b)**

Goldman, André (*with* Visscher, W.) Applications of integral equations in particle-size statistics. **(80m:52010)**

Hess, Christian Théorème ergodique et loi forte des grands nombres pour des ensembles aléatoires. (English summary) **(80b:60019)**

Jakeman, A. J. (*with* Scheaffer, R. L.) On the properties of product integration estimators for linear functionals of particle size distributions. **(80b:62110)**

Kallenberg, Olav On the independence of velocities in a system of noninteracting particles. **(80a:60072)**
On the asymptotic behavior of line processes and systems of non-interacting particles. **(80a:60073)**
L_2-intensities of random measures. **(80j:60081)**

Kraj, Władysław *See* **Bodziony, Jakub, (80a:52010)**

Mandelbrot, Benoît Colliers aléatoires et une alternative aux promenades au hasard sans boucle: les cordonnets discrets et fractals. (English summary) **(80c:60118)**

Nguyen, Hung Trung On random sets and belief functions. **(80g:60004)**

Oster, George F. *See* **Perelson, Alan S., (80k:92003)**

Perelson, Alan S. (*with* Oster, George F.) Theoretical studies of clonal selection: minimal antibody repertoire size and reliability of self–non-self discrimination. **(80k:92003)**

Peyrière, Jacques Sur les colliers aléatoires de B. Mandelbrot. (English summary) **(80c:60119)**

Plesnevič, G. S. (*with* Saparov, M. S.) The average number of exact coverings. (Russian. English summary) **(80k:05040)**

Santaló, L. A. Sets of segments on surfaces. (Spanish. English summary) **(80e:52004)**

Saparov, M. S. *See* **Plesnevič, G. S., (80k:05040)**

Scheaffer, R. L. *See* **Jakeman, A. J., (80b:62110)**

Schneider, Rolf Curvature measures of convex bodies. **(80d:52012)**

Visscher, W. *See* **Goldman, André, (80m:52010)**

Westcott, Mark *See* **Gates, D. J., (80a:60134a)** *and* **Gates, D. J., (80a:60134b)**

60Exx Distribution theory [See also 62Exx, 62Hxx.]

60E05 Distributions: general theory

Abouammoh, Abdulrahman M. *See* **Ahmad, Rashid, 80f:60017**

Ahmad, Rashid (*with* Abouammoh, Abdulrahman M.) Pólya-type, Schur-concave and related probability distributions. **80f:60017**

Barndorff-Nielsen, Ole Hyperbolic distributions and distributions on hyperbolae. **80a:60016**

Bedarev, A. S. Discontinuous bivariate distribution functions. (Russian) **80f:60018**

Berman, Simeon M. A class of isotropic distributions in $\mathbf{R}^n$ and their characteristic functions. **80b:60027**

Cipra, Tomáš Class of unimodal distributions and its transformations. (Czech and Russian summaries) **80c:60023**

Fuchs, Aimé (*with* Letta, Giorgio) Sur certaines équations fonctionnelles liées à la loi normale. **80b:60024**

Gualtierotti, Antonio Federico Une généralisation de la loi de densité $f(x)=(2\pi)^{-1/2}\cdot\exp(-(\frac{1}{2})x^2)$. (English summary) **80b:60028**

Huntington, Raymond J. Distribution of the minimum number of points in a scanning interval on the line. **80c:60024**

Januškevičius, R. V. Estimates for the measure of stability for decompositions of probability distributions into components. (Russian. English summary) **80e:60021**

Kemp, Adrienne W. On probability generating functions for matching and occupancy distributions. (Polish summary) **80b:60029**

Kemperman, J. H. B. On the variance of a trimmed Poisson distribution. **80b:60030**

Knight, Frank B. On the absolute difference chains. **80f:60019**

Kudina, L. S. Expansions of probability distributions that decrease rapidly at infinity. (Russian) **80c:60025**

Lai, Chin Diew Morgenstern's bivariate distribution and its application to point processes. **80b:60031**

Letac, Gérard (*with* Olié, François) Les fonctions intérieures de $\mathbf{R}^3_+\to\mathbf{R}^2_+$ et la préservation des lois de Cauchy. (English summary) **80k:60022**

Letta, Giorgio *See* **Fuchs, Aimé, 80b:60024**

O'Connor, Thomas A. Infinitely divisible distributions similar to class L distributions. **80k:60023**

Olié, François *See* **Letac, Gérard, 80k:60022**

Pathak, P. K. A new proof of a theorem of Pólya. **80b:60032**

Riedel, M. *See* **Seiffert, I, 80c:60026**

Seiffert, I (*with* Riedel, M.) Uniqueness of two factorization problems. (Russian summary) **80c:60026**

Yeh, R. Z. Measure-injective Borel functions. **80b:60033**

Zabell, Sandy Continuous versions of regular conditional distributions. **80f:60020**

Secondary classifications:

Anan'evskiĭ, S. M. Concentration functions. (Russian. English summary) **(80b:60031)**

Arnold, Barry C. On characterization and decomposition of Cauchy random variables. **(80m:62011)**

Baringhaus, Ludwig *See* **Davies, P. L., (80c:62006)**

Davies, P. L. (*with* Baringhaus, Ludwig) Linear statistics and exponential families. **(80e:62006)**

Mihailov, V. G. *See* **Zubkov, A. M., (80k:60034)**

Miller, Grady Properties of certain symmetric stable distributions. **(80a:62067)**

Schay, Geza Optimal joint distributions of several random variables with given marginals. **(80h:60005a)**

Shanbhag, D. N. On some problems in distribution theory. **(80l:62011)**

Siegel, Andrew F. Asymptotic coverage distributions on the circle. **(80k:60020)**

Zinger, A. A. A characterization of the multivariate normal law by the independence of linear statistics. (Russian. English summary) **(80l:62041)**

Zubkov, A. M. (*with* Mihailov, V. G.) The repetitions of s-tuples in a sequence of independent trials. (Russian. English summary) **(80k:60034)**

60E07 Infinitely divisible distributions; stable distributions

Berg, Christian (*with* Forst, Gunnar) Infinitely divisible probability measures and potential kernels. **80h:60025**

Bondesson, Lennart On generalized gamma and generalized negative binomial convolutions. I, II. **80l:60017**
On the infinite divisibility of products of powers of gamma variables. **80k:60026**

Brockwell, P. J. (*with* Brown, B. M.) Expansions for the positive stable laws. **80c:60027**

Brown, B. M. *See* **Brockwell, P. J., 80c:60027**

Embrechts, Paul (*with* Goldie, Charles M.; Veraverbeke, Noël) Subexponentiality and infinite divisibility. **80j:60025**

Forst, Gunnar A characterization of self-decomposable probabilities on the half-line. **80l:60018**
See also **Berg, Christian, 80h:60025**

Goldie, Charles M. *See* **Puri, Prem S., 80h:60028** *and* **Embrechts, Paul; et al., 80j:60025**

Halgreen, C. Self-decomposability of the generalized inverse Gaussian and hyperbolic distributions. **80e:60022**

van Harn, Klaas ★Classifying infinitely divisible distributions by functional equations. **80c:60028**
See also **Steutel, F. W., 80g:60014**

Jurek, Zbigniew J. Some characterizations of the class of s-self-decomposable distributions. (Russian summary) **80e:60024**
Properties of s-stable distribution functions. (Russian summary) **80m:60020**

Kemp, Adrienne W. Cluster size probabilities for generalized Poisson distributions. **80f:60021**

Livšic, L. Z. Conditions for the absence of indecomposable components of infinitely divisible probability distributions with an absolutely continuous Lévy spectral measure. (Russian) **80b:60034**

Miller, H. D. Infinite divisibility in stochastic processes. **80h:60027**

Nguyen Van Thu Multiply self-decomposable measures in generalized convolution algebras. (Russian summary) **80d:60021**

Niedbalska, T. An example of the decomposability semigroup. **80a:60017**

O'Connor, Thomas A. Infinitely divisible distributions with unimodal Lévy spectral functions. **80b:60035**

Ohkubo, Hikaru On the asymptotic tail behaviors of infinitely divisible distributions. **80m:60021**

Puri, Prem S. (*with* Goldie, Charles M.) Poisson mixtures and quasi-infinite divisibility of distributions. **80h:60028**

Sato, Ken-Iti Urbanik's class L_m of probability measures. **80k:60024**

Semovskiĭ, S. V. Operator-stable distributions. (Russian) **80e:60025**

Shanbhag, D. N. (*with* Sreehari, M.) An extension of Goldie's result and further results in infinite divisibility. **80e:60023**

Seshadri, M. *See* Shanbhag, D. N., **80e:60023**
Steutel, F. W. (*with* van Harn, Klaas) Discrete analogues of self-decomposability and stability. **80g:60014**
Infinite divisibility in theory and practice. **80g:60015**
Talwalker, Sh. A note on the characterization of the multivariate normal distribution. **80c:60029**
Thorin, Olof On the infinite divisibility of the lognormal distribution. **80m:60022**
An extension of the notion of a generalized Γ-convolution. **80c:60030**
Proof of a conjecture of L. Bondesson concerning infinite divisibility of powers of a gamma variable. **80c:60031**
Verraverbeke, Noël *See* Embrechts, Paul; et al., **80j:60025**
V'ndev, Dimit"r L. A proof of the Lévy-Hinčin formula via the Bochner and the Krein-Mil'man theorems. (Russian) **80b:60036**
Wolfe, Stephen James On the unimodality of infinitely divisible distribution functions. **80a:60018**

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Grosswald, Emil ★Bessel polynomials. **(80f:33013)**
Hensz, Ewa (*with* Kłosowska, Maria) On the semi-attraction to the stable measures. **(80m:60033)**
Ismail, Mourad E.-H. (*with* May, C. Ping) Special functions, infinite divisibility and transcendental equations. **(80d:33005)**
(*with* Kelker, Douglas H.) Special functions, Stieltjes transforms and infinite divisibility. **(80k:33005)**
Kelker, Douglas H. *See* Ismail, Mourad E.-H., **(80k:33005)**
Kłosowska, Maria *See* Hensz, Ewa, **(80m:60033)**
Kumar, Arunod (*with* Schreiber, Bertram M.) Representation of certain infinitely divisible probability measures on Banach spaces. **(80j:60013)**
Lukacs, Eugene Sur quelques propriétés des lois stables et symétriques. (English summary) **(80b:62019)**
May, C. Ping *See* Ismail, Mourad E.-H., **(80d:33005)**
Padlitz, Ludwig Über die Annäherung von Summenverteilungsfunktionen gegen unbegrenzte teilbare Verteilungsfunktionen in der Terminologie der Pseudomomente. **(80d:60028)**
Schreiber, Bertram M. *See* Kumar, Arunod, **(80j:60013)**
Stützer, Hans-Jürgen Sekundärgrössen unbegrenzt teilbarer Punktprozesse. II. **(80b:60076)**

60E10 Characteristic functions; other transforms

Čistjakov, G. P. α-expansions of characteristic functions which are limiting values of analytic functions. (Russian) **80e:60026**
Ghosh, Pankaj A characterization of a bimodal distribution. **80b:60037**
Glazburg, B. N. (*with* Seryh, N. D.) Algebraic zero surfaces of entire characteristic functions of multivariate-dimensional probabilistic distributions. (Russian) **80d:60022**
Il'inskiĭ, A. I. The c-decomposability of characteristic functions. (Russian. Lithuanian and English summaries) **80a:60019**
Krée, Paul (*with* Met, P. N.) Utilisation de la transformation de Laplace pour l'évaluation de fonctions de répartition. (English summary) **80f:60022**
Met, P. N. *See* Krée, Paul, **80f:60022**
Schopf, G. Conjugate orders and conjugate types of the decrease of a multidimensional probability law. (Russian) **80g:60016b**
Conjugate orders and conjugate types of decrease of a multivariate probability law. (Russian. German summary) **80g:60016a**
Šervašidze, T. L. Inequalities for the characteristic function of an absolutely continuous distribution. (Russian. Georgian and English summaries) **80k:60025**
Seryh, N. D. *See* Glazburg, B. N., **80d:60022**
Springer, Melvin D. ★The algebra of random variables. **80h:60029**
Wolfe, Stephen James On the behavior of characteristic functions of the real line. **80a:60020**
Yor, Marc Fonctions et processus de Bessel. (English summary) **80k:60026**

Secondary classifications:

Bondesson, Lennart On generalized gamma and generalized negative binomial convolutions. I, II. **(80i:60017)**
Forst, Gunnar A characterization of self-decomposable probabilities on the half-line. **(80i:60018)**
Ohkubo, Hikaru On generalized Fourier-Stieltjes transforms. **(80j:42021)**
Riedel, M. *See* Seiffert, I, **(80c:60026)**
Seiffert, I (*with* Riedel, M.) Uniqueness of two factorization problems. (Russian summary) **(80c:60026)**

60E15 Inequalities (Čebyšev, Kolmogorov, etc.)

Bahman, J. M. Inequalities in discrete distributions. **80f:60023**
Chung, Kong Ming On a fundamental theorem for expectation. **80e:60027**
Chvátal, V. The tail of the hypergeometric distribution. **80j:60026**
Dik, J. J. *See* Zijm, W. H. M., **80f:60024**
Gentle, James E. Mean inequalities. **80j:60027**
Miyamoto, Takao On a generalization of Čebyšev's inequality. (Japanese. English summary) **80e:60028**
Móricz, Ferenc Exponential estimates for the maximum of partial sums. I. Sequences of rv's. **80d:60023**
Ponomarenko, L. S. Inequalities for distributions of normalized quadratic forms in random variables. (Russian. English summary) **80h:60030**
Zijm, W. H. M. (*with* Dik, J. J.) Two inequalities for Poisson probabilities. **80f:60024**

Secondary classifications:

Antonov, S. N. Probability inequalities for a series of independent random variables. (Russian. English summary) **(80i:60033)**
Damianou, Ch. *See* Kounias, Eustratios G., **(80h:60019)**
Devroye, Luc P. (*with* Wagner, Terry J.) Distribution-free inequalities for the deleted and holdout error estimates. **(80g:62039)**
Kounias, Eustratios G. (*with* Damianou, Ch.) On an inequality in probability. **(80h:60019)**
León, Ramón V. (*with* Proschan, Frank) An inequality for convex functions involving G-majorization. **(80h:26014)**
Mogyoródi, J. (*with* Somogyi, Á.) A convergence theorem and a strong law of large numbers for martingales. **(80i:60040)**
Proschan, Frank *See* León, Ramón V., **(80h:26014)**
Somogyi, Á. *See* Mogyoródi, J., **(80i:60040)**
Styan, George P. H. *See* Wolkowicz, Henry, **(80h:62038)**
Wagner, Terry J. *See* Devroye, Luc P., **(80g:62039)**
Wolkowicz, Henry (*with* Styan, George P. H.) Extensions of Samuelson's inequality. **(80h:62038)**

60E99 None of the above, but in this section

Lee, P. A. Canonical expansion of a mixed bivariate distribution with negative binomial and gamma marginals. **80m:60023**

Secondary classifications:

Borell, Christer A note on conditional probabilities of a convex measure. **(80c:60012)**
Divgi, D. R. Calculation of univariate and bivariate normal probability functions. **(80d:62021)**
Rockwell, Christina (*with* Yellott, John I., Jr.) A note on equivalent Thurstone models. **(80i:92028)**
Yellott, John I., Jr. *See* Rockwell, Christina, **(80i:92028)**

60Fxx Limit theorems [See also 28Dxx, 60B12.]

60F05 Central limit and other weak theorems

Abdalimov, B. A. *See* Malevič, T. L., **80i:60023**
Ahmad, Ibrahim A. A note on rates of convergence in the multidimensional CLT for maximum partial sums. **80g:60017**
Anan'evskiĭ, S. M. Concentration functions. (Russian. English summary) **80h:60031**
Anišimov, V. V. Limit theorems for switching processes and their applications. (Russian. English summary) **80e:60029**
Atakuriev, D. Estimates of the rate of convergence in an integral and a local transfer theorem. (Russian) **80a:60021**
Avni, Haim Weak limit for the stationary distribution of the infinite-alleles model. **80i:60019**
Banys, J. A refinement of the rate of convergence of densities to the stable law with the characteristic index $0<\alpha<1$ in the L_p metric. (Russian. Lithuanian and English summaries) **80a:60022**
Basu, A. K. On the rates of convergence in limit theorems for one-sided stopping rules. **80a:60023**
Basu, Sujit K. (*with* Maejima, Makoto) An L_p version of the local limit theorem for densities. **80m:60024**
(*with* Maejima, Makoto) A local limit theorem for attractions under a stable law. **80j:60028**
Bauer, W. On the limit distribution of the entropy of random partitions. **80m:60025**
Beck, Jon M. A uniform estimate for the sum of independent R.V.'s with an application to Stein's lemma. (Russian summary) **80a:60024**
Berkes, István On the central limit theorem for lacunary trigonometric series. (Russian summary) **80c:60032**
A central limit theorem for trigonometric series with small gaps. **80f:60025**
Berman, Jeremy A limit theorem for the moments of sums of independent random variables. **80a:60025**
Bokučava, I. V. The central limit theorem for conditionally independent sequences. (Russian. Georgian and English summaries) **80m:60026**
Bolthausen, Erwin Weak convergence of an empirical process indexed by the closed convex subsets of I^2. **80d:60024**
On the global asymptotic behavior of Brownian local time on the circle. **80k:60027**
Bondarko, V. M. Estimates for quantiles in the central limit theorem. (Russian. English summary) **80g:60018**
Borisov, I. S. Some limit theorems for sums of dependent random processes. (Russian) **80k:60028**
Borodin, A. N. Limit theorems for sums of independent random variables defined on a transient random walk. (Russian. English summary) **80j:60029**
Bretagnolle, J. (*with* Huber, C.) Lois empiriques et distance de Prokhorov. **80e:60030**
Brockett, Patrick L. The effect of random scale changes on limits of infinitesimal systems. **80e:60031**
Brown, Tim *See* Silverman, Bernard, **80c:60042**
Butzer, P. L. (*with* Hahn, Lothar) General theorems on rates of convergence in distribution of random variables. I. General limit theorems. **80a:60026a**
(*with* Hahn, Lothar) General theorems on rates of convergence in distribution of random variables. II. Applications to the stable limit laws and weak law of large numbers. **80a:60026b**
(*with* Dickmeis, W.; Hahn, Lothar; Nessel, R. J.) Lax-type theorems and a unified approach to some limit theorems in probability theory with rates. **80m:60027**
Chen, Louis H. Y. Stein's method in limit theorems for dependent random variables. **80m:60028**

Christoph, Gerd ★Konvergenzaussagen und asymptotische Entwicklungen für die Verteilungsfunktion einer Summe unabhängiger, identisch verteilter Zufallsgrössen im Falle einer stabilen Grenzverteilungsfunktion. **80m:60029**
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60F10 Large deviations

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Aleškevičienė, A. Probabilities of large deviations for the maximum of sums of independent random variables. (Russian. English summary) **80j:60038a**

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60F15 Strong theorems

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Nagaraja, H. N. A note on almost sure convergence of sums of order statistics. 80d:60040
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Šadmanov, Dž. A generalization of Kolmogorov's theorem on the law of the iterated logarithm. (Russian) 80a:60036
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Somogyi, Á. *See* **Mogyoródi, J.,** 80i:60040
Sotres, David A. (*with* Ghosh, Malay) Strong convergence of linear rank statistics for mixing processes. 80j:60040
Takahata, Hiroshi An application of the Strassen law of the iterated logarithm to density estimations. 80m:60043
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Teicher, Henry Generalized exponential bounds, iterated logarithm and strong laws. 80h:60044
(Tucker, H. G.) *See* **Hall, Peter,** 80g:60028
Vasudeva, R. A log log law for Abel's sum. 80a:60037
A logarithmic law for sums of stable random variables. 80j:60041
Wilmesmeier, James M. (*with* Wright, F. T.) The almost sure stability of quadratic forms. 80f:60032
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Yokoyama, Ryôzô On the Bahadur representation of sample quantiles for mixing processes. 80k:60036
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Akcoglu, Mustafa A. (*with* Krengel, Ulrich) A differentiation theorem for additive processes. (80d:47007)
(*with* Sucheston, Louis) A ratio ergodic theorem for superadditive processes. (80h:28021)
Bellow, Alexandra (*with* Dvoretzky, A.) A characterization of almost sure convergence. (80k:60053)
Berkes, István (*with* Philipp, Walter) Approximation theorems for independent and weakly dependent random vectors. (80k:60008)
Book, Stephen A. (*with* Shore, Terence R.) On large intervals in the Csörgő-Révész theorem on increments of a Wiener process. (80k:60052)
Bridges, Douglas S. On the constructive convergence of series of independent functions. (80g:03060)
Cranwell, R. M. (*with* Weiss, N. A.) A strong law of large numbers for stationary point processes. (80b:60072)
Csörgő, Miklós (*with* Révész, Pál) On the standardized quantile process. (80h:62013)
Deo, Chandrakant M. Delayed averages of a stationary Gaussian sequence. (80b:60055)
Dvoretzky, A. *See* **Bellow, Alexandra,** (80k:60053)
Földes, A. *See* **Winter, B. B.; et al.,** (80d:62034)
Gut, Allan Maximum of the maximum of normed partial sums of random variables with multidimensional indices. (80k:60068)
Hebda-Grabowska, H. (*with* Szynal, D.) An almost sure invariance principle for the partial sums of infima of independent random variables. (80k:60039)
Hüsler, Jürg Almost sure limiting behaviour of first crossing points of Gaussian sequences. (80j:60052)
Kesten, Harry Erickson's conjecture on the rate of escape of d-dimensional random walk. (80j:60098)
The speed of convergence of a martingale. (80k:60060)
Krengel, Ulrich *See* **Akcoglu, Mustafa A.,** (80d:47007)
Kuelbs, James (*with* Zinn, Joel) Some stability results for vector valued random variables. (80h:60014)
Lootgieter, J.-C. Sur la répartition des suites de Kakutani. II. (English summary) (80a:60110)
Major, Péter On the invariance principle for sums of independent identically distributed random variables. (80f:60034)
Medovyĭ, V. S. *See* **Žulenev, S. V.,** (80g:62068)
Mogul'skiĭ, A. A. The law of the iterated logarithm in Chung's form for function spaces. (Russian. English summary) (80m:60012)
Móricz, Ferenc Exponential estimates for the maximum of partial sums. I. Sequences of rv's. (80d:60023)
Nagaev, S. V. Large deviations of sums of independent random variables. (80k:60033)
Peyrière, Jacques A singular random measure generated by splitting [0, 1]. (80f:60006)
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Rejtő, L. *See* **Winter, B. B.; et al.,** (80d:62034)
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Shore, Terence R. *See* **Book, Stephen A.,** (80k:60052)
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Teicher, Henry Rapidly growing random walks and an associated stopping time. (80j:60036)
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60F17 Functional limit theorems; invariance theorems

Basu, A. K. (*with* Dorea, C. C. Y.) On functional central limit theorem for stationary martingale random fields. **80k:60037**

Berkes, István (*with* Philipp, Walter) An a.s. invariance principle for lacunary series $f(n_k x)$. **80i:60042**

Deo, Chandrakant M. A note on ϕ-mixing sequences. **80g:60029**

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Durrett, Richard (*with* Resnick, Sidney I.) Functional limit theorems for dependent variables. **80b:60048**

Gänssler, Peter (*with* Häusler, Erich) Remarks on the functional central limit theorem for martingales. **80m:60044**

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Ivanov, O. V. (*with* Leonenko, M. M.) On the convergence of distributions of functionals of an estimate of a covariance function. (Russian. Lithuanian and English summaries) **80b:60049**

Jadrenko, M. I. *See* **Leonenko, M. M., 80c:60050**

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Sherack, Galen R. Weak convergence of empirical and quantile processes in sup-norm metrics via KMT-constructions. **80i:60044**

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Borisov, I. S. Some limit theorems for sums of dependent random processes. (Russian) **(80k:60028)**
Csenki, Attila An invariance principle in k-dimensional extended renewal theory. **(80f:60123)**
Grinblat, L. Š. Convergence of random processes and of probability measures. **(80j:60005)**
Kaplan, E. I. (*with* Sil'vestrov, D. S.) Theorems of invariance principle type for recurrent semi-Markov processes with an arbitrary phase space. (Russian. English summary) **(80h:60108)**
Shorack, Galen R. Extension of the Darling and Erdős theorem on the maximum of normalized sums. **(80i:60028)**
Sil'vestrov, D. S. *See* **Kaplan, E. I., (80h:60108)**
Timofeev, N. M. (*with* Usmanov, H. H.) Additive functions and limit theorems in function spaces. (Russian. Tajiki summary) **(80k:10050)**
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Yoshihara, Ken-ichi Moment inequalities for mixing sequences. **(80f:60033)**

60F20 Zero-one laws

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Siegel, G. Zero-one laws and weak convergences for sums of independent random variables. **80j:60043**

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Dineen, Seán Zero one laws for probability measures on locally convex spaces. **(80j:60017)**
Inglot, T. An elementary approach to the zero-one laws for Gaussian measures. **(80j:60012)**
Khalili, Siamak Independent fuzzy events. **(80e:60004)**
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Rao, K. P. S. Bhaskara (*with* Pol, Roman) Topological zero-one laws. **(80a:54069)**
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60F25 L^p-limit theorems

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60F99 None of the above, but in this section

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60Gxx Stochastic processes

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Hofstadter, Douglas R. ★Gödel, Escher, Bach: an eternal golden braid. **(80j:03009)**

60G05 Foundations of stochastic processes

Brückner, Damian (*with* Podhorodyński, Marian; Skalmierski, Bogdan) Stochastic processes via a sequential approach. (Polish. English summary) **80h:60047**
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Goldstein, Sheldon Maximal coupling. **80k:60041**
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Gänssler, Peter (*with* Stute, Winfried) On realizability of stochastic processes. **(80g:60036)**
Janssen, Arnold Some remarks on the decomposition of kernels. **(80d:28017)**
Stute, Winfried *See* **Gänssler, Peter, (80g:60036)**

60G07 General theory of processes

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Dellacherie, Claude Sur l'existence de certains ess.inf et ess.sup de familles de processus mesurables. **80e:60042**
Supports optionnels et prévisibles d'une P-mesure et applications. **80e:60043**
Meyer, Paul-André Sur le lemme de la Vallée Poussin et un théorème de Bismut. **80h:60049**
Stricker, Christophe Les ralentissements en théorie générale des processus. **80i:60046**

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Hrulčev, S. V. The entropy meaning of the summability of the logarithm. (Russian. English summary) **80a:60038**
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Mittal, Yashaswini Extreme value distribution for normalized sums from stationary Gaussian sequences. **80h:60050**
Morettin, Pedro Alberto On homogeneous stochastic processes on compact abelian groups. **80i:60048**
Nawrotzki, Kurt Weak ergodicity of stationary random sequences of stochastic matrices. (Russian) **80k:60042**
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Schmidt, F. Banach-space-valued stationary processes with absolutely continuous spectral function. **80f:60036**
Terdik, György *See* **Kornos, J., 80e:60044**

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Bjerhammar, Arne (*with* Svensson, Leif) The convergence of harmonic reduction to an internal sphere. **(80m:86007)**
Brunhes, Denis Prédiction d'un processus stochastique faiblement stationnaire scalaire ou vectoriel perturbé par un bruit blanc. **(80e:60054)**

Chatterji, S. D. Stochastic processes and commutation relationships. **(80b:60053)**
Dubrovin, V. T. (*with* Moskvin, D. A.) A central limit theorem for sums of functions of mixing sequences. (Russian. English summary) **(80b:60032)**
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Hipp, Christian Convergence rates of the strong law for stationary mixing sequences. **(80b:60043)**
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Marcus, Michael B. *See* **Araujo, Aloisio, (80j:60053)**
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Salehi, H. *See* **Miamee, A. G., (80g:47022)**
Svensson, Leif *See* **Bjerhammar, Arne, (80m:86007)**
Szafraniec, F. H. Apropos of Professor Masani's talk. **(80g:47005)**
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Zimmer, Robert J. Ergodic actions and stochastic processes on groups and homogeneous spaces. **(80h:28030)**

60G12 General second-order processes

Blanc-Lapierre, A. Problèmes liés à la détermination des spectres de puissance en théorie des fonctions aléatoires. **80j:60047**
Bulatović, Jelena One sufficient condition for the unit multiplicity of a stochastic process. **80e:60045**
Note on the maximal spectral type of a stochastic process. **80e:60046**
Chatterji, S. D. Stochastic processes and commutation relationships. **80b:60053**
Cramér, Harald On some points of the theory of stochastic processes. **80k:60043**
Dragan, Ja. P. Rigged Hilbert spaces and the structure of a stochastic process. (Russian) **80e:60047**
Harmonizability and spectral distribution of random processes with finite mean power. (Russian. English summary) **80k:60044**
Algorithms for the computation of a scalar product in a positive normalization space that is constructed from the covariance of a random process. (Russian) **80i:60050**
Kolodziej, Henryk (*with* Szczepankiewicz, Eugeniusz) Certain classes of correlation functions of almost stationary quasi-isotropic random fields. (Polish. English summary) **80c:60052**
Lindquist, Anders (*with* Picci, Giorgio; Ruckebusch, Guy) On minimal splitting subspaces and Markovian representations. **80e:60048**
Métivier, Guy Propriétés du spectre évolutif d'un processus non stationnaire. (English summary) **80d:60041**
Mlak, W. Dissipative random processes. **80g:60032**
Nguyen Van Thu (*with* Weron, Aleksander) Examples of non-stationary Banach space valued stochastic processes of second order. **80d:60042**
Picci, Giorgio *See* **Lindquist, Anders; et al., 80e:60048**
Rousseau-Egele, J. La loi forte des grands nombres pour les processus harmonisables. (English summary) **80k:60045**
Ruckebusch, Guy *See* **Lindquist, Anders; et al., 80e:60048**
Salkauskas, Kalevi On measures induced by vector-valued Gaussian processes. **80j:60048**
Štulajter, František RKHS approach to nonlinear estimation of random variables. **80f:60037**
Szczepankiewicz, Eugeniusz (*with* Wnuk, Henryk) Moments of certain random variables. (Polish. English summary) **80c:60053**
A certain class of almost stationary quasi-isotropic random fields. (Polish. English summary) **80c:60054**
See also **Kolodziej, Henryk, 80c:60052**
Tjostheim, Dag Multiplicity theory for random fields using quantum mechanical methods. **80a:60051**
Weron, Aleksander *See* **Nguyen Van Thu, 80d:60042**
Wnuk, Henryk *See* **Szczepankiewicz, Eugeniusz, 80c:60053**

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Gualtierotti, Antonio Federico On cross-covariance operators. **(80k:94014)**
Saaretsalo, Lauri On prediction and mean-estimation for a Hilbert space valued time series. **(80i:62083)**
Sünkel, Hans ★Approximation of covariance functions by non-positive definite functions. **(80b:26004)**

60G15 Gaussian processes

(Aries, A. B.) *See* **Ibragimov, I. A.; et al., 80f:60038**
Book, Stephen A. (*with* Shore, Terence R.) On large intervals in the Csörgő-Révész theorem on increments of a Wiener process. **80h:60052**
Borell, Christer Tail probabilities in Gauss space. **80c:60055**
Cambanis, Stamatis *See* **Huang, Steel T., 80m:60047**
Carmona, René Tensor product of Gaussian measures. **80a:60039**
Banach space valued Gaussian processes. **80j:60049**
Carnal, Étienne Propriétés markoviennes des produits tensoriels de covariances markoviennes. (English summary) **80b:60054**
Čobanjan, S. A. *See* **Gorgadze, Z. G.; et al., 80a:60042**
Cuzick, Jack Some local properties of Gaussian vector fields. **80a:60040**
Deo, Chandrakant M. Delayed averages of a stationary Gaussian sequence. **80k:60055**
(*with* Wong, H. Ship-Fah) Champs aléatoires gaussiens. (English summary) **80h:60053**
(*with* Wong, H. Ship-Fah) On quadratic variation of Gaussian random fields. (Russian) **80a:60041**
Dudley, R. M. Lower layers in $\mathbf{R}^2$ and convex sets in $\mathbf{R}^3$ are not GB classes. **80m:60046**
See also **Hoffmann-Jørgensen, J.; et al., 80j:60051**
Geodakov, N. A. Convergence of Longuet-Higgins series for Gaussian stationary differentiable processes. (Russian. English summary) **80e:60049**
Goodman, Victor Transition probabilities for vector-valued Brownian motion with boundaries. **80d:60043**
Gorgadze, Z. G. (*with* Tarieladze, V. I.; Čobanjan, S. A.) Gaussian covariances in Banach sublattices of the space $L_0(T, \Sigma, \nu)$. (Russian) **80a:60042**
Hitsuda, Masuyuki Equivalence problem on Gaussian N-ple Markov processes with multiplicity N. **80j:60050**
Hoffmann-Jørgensen, J. (*with* Shepp, L. A.; Dudley, R. M.) On the lower tail of Gaussian seminorms. **80j:60051**
Huang, Steel T. (*with* Cambanis, Stamatis) Stochastic and multiple Wiener integrals for Gaussian processes. **80m:60047**
Hüsler, Jürg Almost sure limiting behaviour of first crossing points of Gaussian sequences. **80j:60052**
Ibragimov, I. A. (*with* Rozanov, Juriĭ Anatol'evič) ★Gaussian random processes. **80f:60038**
Jain, Naresh C. (*with* Marcus, Michael B.) Continuity of sub-Gaussian processes. **80d:60044**
Kawada, Takayuki Maximum in the Lévy-Baxter theorem for Gaussian random fields. **80e:60050**
Klein, Ruben Quadratic variation of processes with Gaussian increments. (Portuguese) **80d:60045**
Kôno, Norio Double points of a Gaussian sample path. **80g:60033**
Körezlioğlu, Hayri Two-parameter Gaussian Markov processes and their recursive linear filtering. **80h:60054**
Leadbetter, M. R. (*with* Lindgren, Georg; Rootzén, H.) Conditions for the convergence in distribution of maxima of stationary normal processes. **80b:60056**
Lindgren, Georg *See* **Leadbetter, M. R.; et al., 80b:60056**
Malevič, T. L. (*with* Volodina, L. N.) Inequalities for the moments of the number of zeros of a stationary Gaussian process. I. (Russian. Uzbek summary) **80d:60046**
(*with* Volodina, L. N.) Inequalities for the moments of the number of zeros of a stationary Gaussian process. II. (Russian) **80m:60048**
Marcus, Michael B. *See* **Jain, Naresh C., 80d:60044**
Mittal, Yashaswini A new mixing condition for stationary Gaussian processes. **80g:60034**
Piterbarg, V. I. Asymptotic expansions for the probabilities of large excursions of Gaussian processes. (Russian) **80k:60046**
Pitt, Loren D. (*with* Tran, Lanh T.) Local sample path properties of Gaussian fields. **80g:60035**
Pliūnas, A. Ė. Large deviations for some nonlinear transformations of a stationary Gaussian process. (Russian) **80d:60047**
Rhoades, D. A. Nonanticipative representations of Banach-space-valued Gaussian processes with respect to Brownian motion. **80e:60051**
Rootzén, H. *See* **Leadbetter, M. R.; et al., 80b:60056**
Rozanov, Juriĭ Anatol'evič *See* **Ibragimov, I. A., 80f:60038**
Shepp, L. A. *See* **Hoffmann-Jørgensen, J.; et al., 80j:60051**
Shore, Terence R. *See* **Book, Stephen A., 80h:60052**
Sudakov, V. N. Geometric problems in the theory of infinite-dimensional probability distributions. **80e:60052**
Sytaja, G. N. Asymptotic behavior of the measure of small spheres for Gaussian processes that are equivalent to the Brownian process. (Russian. English summary) **80a:60043**
Tarieladze, V. I. *See* **Gorgadze, Z. G.; et al., 80a:60042**
Tran, Lanh T. *See* **Pitt, Loren D., 80g:60035**
Volodina, L. N. *See* **Malevič, T. L., 80d:60046** *and* **Malevič, T. L., 80m:60048**
Weber, Michel Tests intégraux pour certaines classes de processus gaussiens stationnaires à trajectoires continues. (English summary) **80c:60056**
Wong, H. Ship-Fah *See* **Deo, Chandrakant M., 80a:60041** *and* **Deo, Chandrakant M., 80h:60053**
Zinčenko, N. M. On the p-variation of Gaussian random fields. (Russian. English summary) **80a:60044**
Trudy Mat. Inst. Steklov. *See* **Sudakov, V. N., 80e:60052**

Secondary classifications:

Byczkowski, T. Some results concerning Gaussian measures on metric linear spaces. **(80j:60021)**
Cabaña, Enrique M. The Kolmogorov equation for a plane barrier problem. **(80m:60054)**
Carmona, René (*with* Chevet, Simone) Tensor Gaussian measures on $L^p(E)$. **(80j:60010)**
Chevet, Simone *See* **Carmona, René, (80j:60010)**
Fernique, X. Random functions and Orlicz's method. Regularity of paths and limit properties. **(80d:60049)**
Caractérisation de processus à trajectoires majorées ou continues. **(80k:60047)**
Continuité et théorème central limite pour les transformées de Fourier des mesures aléatoires du second ordre. **(80c:60038)**
Fox, Ronald Forrest Gaussian stochastic processes in physics. **(80i:82010)**
Gattinger, Matthias Representation theorems for operators and measures on abstract Wiener spaces. **(80d:28031)**
Geman, Donald Dispersion points for linear sets and approximate moduli for some stochastic processes. **(80i:28004)**
Gutmann, Sam Correlations of functions of normal variables. **(80e:62040)**

Heikar, H. Vishnu A functional law of the iterated logarithm for maximum of Gaussian sequences. **(80a:60033)**
Heinkel, Bernard Sur la loi du logarithme itéré dans les espaces de Banach. (English summary) **(80f:60013)**
Heinz, Werner E. On the central limit theorem in F-spaces. **(80a:60008)**
Himenko, V. I. On the average number of excursions of the trajectory of a non-Gaussian random process above a given level. (Russian. English summary) **(80a:78014)**
Hwang, Chii Ruey Gaussian measure of large balls in a Hilbert space. **(80j:60011)**
Koopmans, L. H. An application of a crossing probability bound to population biology. **(80a:62169)**
Kvarachellja, V. V. Unconditional convergence of Gaussian series. (Russian) **(80c:60015)**
Leadbetter, M. R. Extreme value theory under weak mixing conditions. **(80k:60083)**
Linde, Werner Gaussian measures on Banach spaces. **(80d:47032)**
Marcus, Michael B. (*with* Pisier, Gilles) ★Necessary and sufficient conditions for the uniform convergence of random trigonometric series. **(80m:42009)**
Continuity and the central limit theorem for random trigonometric series. **(80c:60037)**
Mittal, Yashaswini Extreme value distribution for normalized sums from stationary Gaussian sequences. **(80h:60050)**
Nguen Zui Tien The structure of measurable linear functionals on Banach spaces with Gaussian measures. (Russian. English summary) **(80f:60069)**
Park, C. (*with* Skoug, D. L.) Distribution estimates of barrier-crossing probabilities of the Yeh-Wiener process. **(80e:60093)**
Pisier, Gilles *See* **Marcus, Michael B., (80m:42009)**
Skoug, D. L. *See* **Park, C., (80e:60093)**

60G17 Sample path properties

Araujo, Aloisio (*with* Marcus, Michael B.) Stable processes with continuous sample paths. **80j:60053**
Bilyk, M. G. Some properties of excursions of random processes. (Russian) **80d:60048**
Davydov, Ju. A. Local times for stochastic processes with multidimensional parameters. (Russian. English summary) **80a:60045**
(*with* Rozin, A. L.) Sojourn times for functions and stochastic processes. (Russian. English summary) **80a:60046**
Fernique, X. Random functions and Orlicz's method. Regularity of paths and limit properties. **80d:60049**
Caractérisation de processus à trajectoires majorées ou continues. **80k:60047**
Gänssler, Peter (*with* Stute, Winfried) On realizability of stochastic processes. **80g:60036**
Gladka, O. M. Conditions for the sample directional differentiability of certain classes of random fields. (Russian. English summary) **80a:60047**
Hawkes, John Measures of Hausdorff type and stable processes. **80g:60037**
Ibragimov, I. A. Sur la régularité des trajectoires des fonctions aléatoires. (English summary) **80m:60049**
Kalnauskaitė, Nijolė On sample functions of multiparameter stochastic processes with independent increments. **80f:60039**
Kawata, Tatsuo Lipschitz classes of periodic stochastic processes. **80d:60050**
Kedem, Benjamin Sufficiency and the number of level crossings by a stationary process. **80a:60048**
Kôno, Norio Best possibility of an integral test for sample continuity of L_p-processes ($p > 2$). **80a:60049**
Kuelbs, James Rates of growth for Banach space valued independent increment processes. **80i:60051**
Marcus, Michael B. *See* **Araujo, Aloisio, 80j:60053**
Nanopoulos, Constantin (*with* Nobelis, Photis) Régularité et propriétés limites des fonctions aléatoires. **80g:60038**
Nobelis, Photis *See* **Nanopoulos, Constantin, 80g:60038**
Nosko, V. P. The definition of the number of excursions above fixed level by a random field. (Russian. English summary) **80i:60052**
Pisier, Gilles Sur l'espace de Banach des séries de Fourier aléatoires presque sûrement continues. **80j:60054**
Rozin, A. L. *See* **Davydov, Ju. A., 80a:60046**
Sambandham, M. On the average number of real zeros of a class of random algebraic curves. **80h:60055**
Sharpe, Ken Some properties of the crossings process generated by a stationary χ^2 process. **80a:60050**
Level crossings of a constructed process. **80b:60057**
Stute, Winfried *See* **Gänssler, Peter, 80g:60036**
Tran, Lanh T. The range of Lévy's N-parameter Brownian motion in d-space. **80f:60040**
VenezIano, Daniele Envelopes of vector random processes and their crossing rates. **80d:60051**

Secondary classifications:

Adler, Robert J. The uniform dimension of the level sets of a Brownian sheet. **(80a:60102)**
Bakry, D. Sur la régularité des trajectoires des martingales à deux indices. **(80m:60066)**
Book, Stephen A. (*with* Shore, Terence R.) On large intervals in the Csörgő-Révész theorem on increments of a Wiener process. **(80h:60052)**
Csörgő, Miklós (*with* Révész, Pál) How small are the increments of a Wiener process? **(80a:60031)**
(*with* Révész, Pál) How big are the increments of a Wiener process? **(80g:60025)**
Geman, Donald Dispersion points for linear sets and approximate moduli for some stochastic processes. **(80i:28004)**
Greenwood, Priscilla (*with* Shaked, Moshe) Dual pairs of stopping times for random walk. **(80a:60089)**
Haba, Z. Hölder continuity of sample paths in Euclidean field theory. **(80k:81097)**
Kaufman, Robert P. On the sum of two Brownian paths. **(80k:60100)**
Leadbetter, M. R. Extreme value theory under weak mixing conditions. **(80k:60083)**
Mittal, Yashaswini A new mixing condition for stationary Gaussian processes. **(80g:60034)**
Nosko, V. P. The mean number of characteristic level curve points of a random field on the plane. (Russian. English summary) **(80m:60067)**
Révész, Pál *See* **Csörgő, Miklós, (80a:60031)** *and* **Csörgő, Miklós, (80g:60025)**
Shaked, Moshe *See* **Greenwood, Priscilla, (80a:60089)**
Shepp, L. A. The joint density of the maximum and its location for a Wiener process with drift. **(80g:60084)**
Shore, Terence R. *See* **Book, Stephen A., (80h:60052)**
Zinčenko, N. M. On the p-variation of Gaussian random fields. (Russian. English summary) **(80a:60044)**

60G20 Generalized stochastic processes

Dobrušin, R. L. (*with* Minlos, R. A.) Polynomials in a generalized random field and its moments. (Russian. English summary) **80j:60055**
Evstigneev, I. V. A note on Gibbs representation. **80a:60051**
Mandrekar, V. On subordination of decomposable fields. **80j:60056**
Meidan, Reuven Reproducing-kernel Hilbert spaces of distributions and generalized stochastic processes. **80e:60053**
Minlos, R. A. *See* **Dobrušin, R. L., 80j:60055**
Ogawa, Shigeyoshi Sur le produit direct du bruit blanc par lui-même. (English summary) **80b:60058**
Rao, Malempati Madhusudana Processus linéaires sur $C_{00}(G)$. (English summary) **80h:60056**

Secondary classifications:

Johnson, Dudley Paul A central limit theorem for general stochastic processes. **(80k:60030)**
Representations of general stochastic processes. **(80k:60082)**

60G25 Prediction theory [See also 62M20.]

Brunhes, Denis Prédiction d'un processus stochastique faiblement stationnaire scalaire ou vectoriel perturbé par un bruit blanc. **80e:60054**
Davis, M. H. A. A direct proof of innovations/observations equivalence for Gaussian processes. **80j:60057**
Dym, Harry A problem in trigonometric approximation theory. **80j:60058**
Fortus, M. I. An explicit formula for the mean square error of the linear extrapolation of a stationary random process with a rational spectral density. (Russian) **80b:60059**
Hosoya, Yuzo Robust linear extrapolations of second-order stationary processes. **80k:60048**
Kanter, Marek Lower bounds for nonlinear prediction error in moving average processes. **80b:60060**
Loginov, A. N. (*with* Ščerbak, L. N.) Prediction of a linear nonstationary random process by the method of integral representations. (Russian) **80a:60052**
Mesropjan, N. Asymptotic behaviour of the prediction error for vector-valued processes of nonmaximal rank. (Russian. English summary) **80m:60050**
Miamee, A. G. (*with* Salehi, H.) On minimality of infinite-dimensional stationary stochastic processes. **80d:60052**
(*with* Salehi, H.) On the bilateral prediction error matrix of a multivariate stationary stochastic process. **80j:60059**
Niemi, Hannu Prediction theory for nonstationary sequences of random vectors. **80f:60041**
Pallaschke, Diethard Orlicz space techniques in prediction theory. **80e:60055**
Phoha, Shashi An algorithm for linear prediction of a Banach space valued stationary stochastic process. **80a:60053**
Piranašvili, Z. A. (*with* Sulaberidze, T. G.) On optimal prediction and filtering of nonlinearly transformed Gaussian random processes. (Russian. Georgian and English summaries) **80m:60051**
Rao, Malempati Madhusudana Erratum: "Abstract nonlinear prediction and operator martingales" [J. Multivariate Anal. 1 (1971), no. 2, 129–157; MR 46 #949]. **80k:60049**
Rozanov, Jurii Anatol'evič Théorie des processus d'innovation. (English summary) **80c:60057**
Salehi, H. Algorithms for linear interpolator and interpolation error for minimal stationary stochastic processes. **80i:60053**
See also **Miamee, A. G., 80d:60052** *and* **Miamee, A. G., 80j:60059**
Scarpellini, Bruno Predicting the future of functions on flows. **80d:60053**
Entropy and nonlinear prediction. **80k:60050**
Ščerbak, L. N. *See* **Loginov, A. N., 80a:60052**
Seghier, A. Prédiction d'un processus stationnaire du second ordre de covariance connue sur un intervalle fini. **80j:60060**
Suciu, Ion (*with* Valuşescu, Ilie) Factorization theorems and prediction theory. **80f:60042**
Sulaberidze, T. G. *See* **Piranašvili, Z. A., 80m:60051**
Terdik, György Notes on matrix-valued stationary stochastic processes. II. **80j:60061**
Valuşescu, Ilie *See* **Suciu, Ion, 80f:60042**
Wilson, G. Tunnicliffe A convergence theorem for spectral factorization. **80a:60054**

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Friel, James O. A convergence rate for adaptive prediction of time series using a modified conjugate direction method. **(80j:62091)**
Hackenbroch, Wolfgang On the Radon-Nikodým theorem for operator measures and its applications to prediction and linear systems theory. **(80f:28008)**
Landers, Dieter (*with* Rogge, Lothar) Connection between the different $\mathcal{L}_2$ predictions with applications. **(80e:62002)**
Rogge, Lothar *See* **Landers, Dieter, (80e:62002)**

Rozanov, Jurii Anatol'evič On the paper "Markov random fields, and stochastic partial differential equations" (Mat. Sb. (N.S.) 103(145) (1977), no. 4, 590–613). (Russian) (80e:60081)

60G30 Continuity and singularity of induced measures

Akritas, M. G. (*with* Puri, Madan L.; Roussas, George G.) Sample size, parameter rates and contiguity—the I.I.D. case. 80d:62038

Baker, Charles R. Absolute continuity for a class of probability measures. 80a:60055
Conditions for absolute continuity. 80g:60039

Balakrishnan, A. V. Likelihood ratios with Gauss measure noise models. 80j:60062
A white noise version of the Girsanov formula. 80m:60052

Chatterji, S. D. Singularity and absolute continuity of measures in infinite dimensional spaces. 80d:60054

Kabanov, Ju. M. (*with* Lipcer, R. Š.; Širjaev, A. N.) Absolute continuity and singularity of locally absolutely continuous probability distributions. I. (Russian) 80e:60056a
(*with* Lipcer, R. Š.; Širjaev, A. N.) Absolute continuity and singularity of locally absolutely continuous probability distributions. II. (Russian) 80e:60056b

Kalandarišvili, S. G. Equivalence of measures corresponding to nonstationary Gaussian processes. (Russian. Georgian and English summaries) 80g:60041

Krasnits'kiĭ, S. M. Some examples of equivalent and orthogonal Gaussian distributions. (Russian. English summary) 80c:60058

Lipcer, R. Š. *See* Kabanov, Ju. M.; et al., 80e:60056a *and* Kabanov, Ju. M.; et al., 80e:60056b

Morimoto, Hiroaki On the absolute continuity of measures relative to a Poisson measure. 80e:60057

Novikov, A. A. Conditions for absolute continuity of probability measures. (Russian) 80e:60058

Pitcher, Tom S. An approximation theorem for likelihood ratios. 80h:60057

Puri, Madan L. *See* Akritas, M. G.; et al., 80d:62038

Ritter, Gunter On Kakutani's dichotomy theorem for infinite products of not necessarily independent functions. 80g:60042

Roussas, George G. *See* Akritas, M. G.; et al., 80d:62038

Šatašvili, A. D. *See* Sohadze, G. A., 80a:60056

Širjaev, A. N. *See* Kabanov, Ju. M.; et al., 80e:60056a *and* Kabanov, Ju. M.; et al., 80e:60056b

Sohadze, G. A. (*with* Šatašvili, A. D.) The equivalence of Gaussian measures under nonlinear transformation in a Hilbert space. (Russian) 80a:60056

Secondary classifications:

Baker, Charles R. Relations between mutual information, strong equivalence, signal-to-noise ratio, and signal sample path properties. (80g:60040b)
Mutual information, strong equivalence, and signal sample path properties for Gaussian processes. (80g:60040a)

Balakrishnan, A. V. Parameter estimation in stochastic differential systems: theory and application. (80a:60059)

Cambanis, Stamatis *See* Huang, Steel T., (80l:60054)

Coursol, Jean (*with* Dacunha-Castelle, Didier) Sur la formule de Chernoff pour deux processus gaussiens stationnaires. (English summary) (80d:62076)

Dacunha-Castelle, Didier *See* Coursol, Jean, (80d:62076)

Gualtierotti, Antonio Federico Une généralisation de la loi de densité $f(x)=(2\pi)^{-1/2}x^2 \exp(-(\frac{1}{2})x^2)$. (English summary) (80b:60028)

Huang, Steel T. (*with* Cambanis, Stamatis) Spherically invariant processes: their nonlinear structure, discrimination, and estimation. (80l:60054)

Kadyrova, I. I. Stochastic equations for jump-like processes. (Russian. English summary) (80m:60070)

Newman, Charles M. (*with* Stuck, B. W.) Optimal sampling of independent increment processes. (80m:62080)

Rao, Malempati Madhusudana Covariance analysis of nonstationary time series. (80a:62149)

Rhoades, D. A. Nonanticipative representations of Banach-space-valued Gaussian processes with respect to Brownian motion. (80e:60051)

Selkäinaho, Kalevi On measures induced by vector-valued Gaussian processes. (80j:60048)

Spătaru, Aurel Stochastic independence of the digits of an f-expansion. (Romanian. English summary) (80h:10061)

Stuck, B. W. *See* Newman, Charles M., (80m:62080)

60G35 Applications (signal detection, filtering, etc.) [See also 62M20, 94Axx.]

Arsenin, V. Ja. (*with* Zjabrev, N. B.) The construction of approximations to optimal filtering. (Russian) 80a:60057

Baker, Charles R. Relations between mutual information, strong equivalence, signal-to-noise ratio, and signal sample path properties. 80g:60040b
Mutual information, strong equivalence, and signal sample path properties for Gaussian processes. 80g:60040a

Balakrishnan, A. V. Parameter estimation in stochastic differential systems: theory and application. 80a:60059
Likelihood ratios for signals in additive white noise. (Lithuanian and Russian summaries) 80a:60058
White noise models in nonlinear filtering and control. 80m:60053

Cambanis, Stamatis *See* Huang, Steel T., 80l:60054

Elošvili, S. A. Filtering of a class of semimartingales with a Gaussian martingale part. (Russian. Georgian and English summaries) 80k:60051

Eshleman, Linda R. *See* Lo, James Ting Ho, 80h:60058

Filinov, V. N. *See* Medvedev, V. A.; et al., 80d:60057

Glonti, O. A. Transmission of Gaussian signals over a channel with feedback. (Russian) 80d:60055
A representation of the optimal filtering estimate for Markov processes that are controlled by stochastic partial integro-differential equations. (Russian. English summary) 80a:60060

Gualtierotti, Antonio Federico Mixtures of Gaussian cylinder set measures and abstract Wiener spaces as models for detection of signals imbedded in noise. 80d:60056

Hibey, Joseph L. (*with* Snyder, Donald L.; Van Schuppen, Jan H.) Error-probability bounds for continuous-time decision problems. 80a:60061

Huang, Steel T. (*with* Cambanis, Stamatis) Spherically invariant processes: their nonlinear structure, discrimination, and estimation. 80l:60054

Janssen, Jacques Promenades aléatoires et filtres. 80e:60059

Körezlioğlu, Hayri (*with* Mazziotto, Gérald; Szpirglas, Jacques) Équations du filtrage non linéaire pour des processus à deux indices. (English summary) 80l:60055

Lindgren, Georg Prediction of level crossings for normal processes containing deterministic components. 80g:60043

Lo, James Ting Ho (*with* Eshleman, Linda R.) Exponential Fourier densities on SO(3) and optimal estimation and detection for rotational processes. 80h:60058

Mazziotto, Gérald (*with* Szpirglas, Jacques) Équations du filtrage non linéaire pour un processus de Poisson mélangé à deux paramètres. (English summary) 80k:60052
See also Szpirglas, Jacques, 80b:60061 *and* Körezlioğlu, Hayri; et al., 80l:60055

Medvedev, V. A. (*with* Oleĭnikov, B. I.; Stepanov, B. M.; Filinov, V. N.) On the optimal discrete representation of nonstationary random processes. (Russian) 80d:60057

Oleĭnikov, B. I. *See* Medvedev, V. A.; et al., 80d:60057

Pardoux, Étienne Filtrage de diffusions avec conditions frontières: caractérisation de la densité conditionnelle. 80a:60062

Pardžanadze, V. V. Optimal nonlinear filtering of a class of conditionally Gaussian sequences. (Russian. Georgian and English summaries) 80d:60058
Optimal nonlinear filtering, interpolation and extrapolation of a class of conditionally-Gaussian processes. (Russian. Georgian and English summaries) 80j:60063

Snyder, Donald L. *See* Hibey, Joseph L.; et al., 80a:60061

Špilevskis, E. Interpolation, filtering, extrapolation and classification of partially observed autoregressive processes and of a moving average. (Russian. Lithuanian and English summaries) 80d:60059

Stepanov, B. M. *See* Medvedev, V. A.; et al., 80d:60057

Szpirglas, Jacques Sur l'équivalence d'équations différentielles stochastiques à valeurs mesures intervenant dans le filtrage markovien non linéaire. 80m:60054
(*with* Mazziotto, Gérald) Modèle général de filtrage non linéaire et équations différentielles stochastiques associées. (English summary) 80b:60061
See also Körezlioğlu, Hayri; et al., 80l:60055 *and* Mazziotto, Gérald, 80k:60052

Talahadze, M. V. A method for the nonparametric estimation of a stationary process. (Russian. Georgian and English summaries) 80f:60043

Van Schuppen, Jan H. *See* Hibey, Joseph L.; et al., 80a:60061

Zjabrev, N. B. *See* Arsenin, V. Ja., 80a:60057

Secondary classifications:

Ahlbehrendt, N. *See* Kempe, Volker, (80h:93064)

Anderson, Brian D. O. (*with* Kailath, Thomas) Forwards, backwards and dynamically reversible Markovian models of second-order processes. (80f:93084)
(*with* Kailath, Thomas) Forwards and backwards models for finite-state Markov processes. (80f:93085)

Baker, Charles R. Conditions for absolute continuity. (80g:60039)
Calculation of the Shannon information. (80h:94024)

Brémaud, Pierre (*with* Yor, Marc) Changes of filtrations and of probability measures. (80b:60062)

Cheng, Qian Sheng *See* Xie, Zhong Jie, (80m:94020)

Dragan, Ja. P. The general form of a rank 1 Hermitian matrix and its applications in probability theory. (Russian) (80j:60045)

Fishman, M. M. Distribution of the duration of a sequential procedure in the case of nonstationary correlated observations. (80h:94009)

Glonti, O. A. Mutual information of signals in transmission through a "noisy" feedback channel. (Russian. English summary) (80m:94040)

Graef, F. Optimal filtering of infinite-dimensional stationary signals. (80f:94006)

Kailath, Thomas *See* Anderson, Brian D. O., (80f:93084) *and* Anderson, Brian D. O. (80f:93085)

Kempe, Volker (*with* Ahlbehrendt, N.) Extrapolation and identification of stochastic processes on the basis of Markov vector models. (Russian) (80h:93064)

Kenefic, R. (*with* Nuttall, A.; Weiner, C.) A Volterra functional expansion for the logarithm of the likelihood ratio for detection of a memoryless nonlinear functional of a random process in Gaussian white noise. (80g:94003)

Körezlioğlu, Hayri Two-parameter Gaussian Markov processes and their recursive linear filtering. (80h:60054)

Mazziotto, Gérald (*with* Szpirglas, Jacques) Calcul stochastique pour des semi-martingales de Poisson à deux paramètres. (English summary) (80c:60072)

Métivier, Michel Stochastic integration with respect to Hilbert valued martingales, representation theorems and infinite-dimensional filtering. (80j:60089)

Nuttall, A. *See* Kenefic, R.; et al., (80g:94003)

Omatu, Sigeru (*with* Soeda, Takashi) Estimation problems for a linear stochastic differential equation in Hilbert space. (80f:93098)
See also Sawaragi, Yoshikazu; et al., (80f:93100)

Ouvrard, Jean-Yves Martingale projection and linear filtering in Hilbert spaces. I. The theory. (80a:93169a)
Linear filtering in Hilbert spaces. II. An application to the smoothing theory for hereditary systems with observation delays. (80a:93169b)

Pardoux, Étienne Stochastic partial differential equation for the density of the conditional law of a diffusion process with boundary. (80d:60082)
Un résultat sur les équations aux dérivées partielles stochastiques et filtrage des processus de diffusion. (English summary) (80b:60084)

Pierce, David A. Signal extraction error in nonstationary time series. (80j:62092)

Rhodes, D. A. Nonanticipative representations of Banach-space-valued Gaussian processes with respect to Brownian motion. **(80e:60051)**
Sawaragi, Yoshikazu (*with* Soeda, Takashi; Omatu, Sigeru) ★Modeling, estimation, and their applications for distributed parameter systems. **(80f:93100)**
Soeda, Takashi *See* **Omatu, Sigeru, (80f:93098)** *and* **Sawaragi, Yoshikazu; et al., (80f:93100)**
Spiriglas, Jacques *See* **Mazziotto, Gérald, (80c:60072)**
Weiner, C. *See* **Kenefic, R.; et al., (80g:94003)**
Wong, E. A martingale approach to random fields. **(80a:60068)**
Xie, Zhong Jie (*with* Cheng, Qian Sheng) The maximum signal-to-noise ratio filtering of signals with nonstationary additive noise. (Chinese. English summary) **(80m:94020)**
Yor, Marc *See* **Brémaud, Pierre, (80h:60062)**

60G40 Stopping times; optimal stopping problems; gambling theory [See also 62L15.]

Beekes, Bernd (*with* Kohlmann, Michael) Optimales Stoppen stetiger Prozesse. (English summary) **80l:60056**
Bellow, Alexandra Submartingale characterization of measurable cluster points. **80g:60044**
(*with* Dvoretzky, A.) A characterization of almost sure convergence. **80k:60053**
Bismut, Jean-Michel Control of jump processes and applications. (French summary) **80a:60063**
Contrôle de processus alternants et applications. (English summary) **80g:60045**
Brunel, Antoine (*with* Krengel, Ulrich) Parier avec un prophète dans le cas d'un processus sous-additif. (English summary) **80b:60062**
Chen, Robert (*with* Zame, Alan) On discounted subfair primitive casino. **80j:60064**
Cowan, Richard (*with* Zabczyk, Jerzy) An optimal selection problem associated with the Poisson process. (Russian summary) **80c:60059**
Dellacherie, Claude (*with* Meyer, Paul-André) Construction d'un processus prévisible ayant une valeur donnée en un temps d'arrêt. **80g:60046**
Dubins, Lester E. (*with* Sudderth, William D.) On stationary strategies for absolutely continuous houses. **80f:60044**
Dvoretzky, A. *See* **Bellow, Alexandra, 80k:60053**
Elsele, Th. On thrifty strategies. **80i:60057**
Fährmann, Hans-Heiner Zur Konvergenz der optimalen Werte der Gewinnfunktion beim Abbruch von Zufallsprozessen im Falle von unvollständiger Information. (English and Russian summaries) **80f:60045**
The optimal stopping of a Wiener process with incomplete data. (Russian. English summary) **80c:60060**
On the convergence of the value in optimal stopping of random sequences with incomplete data. (Russian. Polish summary) **80i:60058**
Friedman, Avner Optimal stopping for random evolution of multi-dimensional Poisson processes with partial observations. **80c:60061**
(*with* Robin, Maurice) The free boundary for variational inequalities with nonlocal operators. **80j:60065**
Gianini-Pettitt, Jacqueline Optimal selection based on relative ranks with a random number of individuals. **80h:60059**
Goldys, Benjamin The secretary problem—the case with memory for one step. **80c:60062**
Hill, Theodore Preston On the existence of good Markov strategies. **80b:60063**
Irle, Albrecht (*with* Schmitz, Norbert) Minimax strategies for discounted "secretary problems". **80i:60059**
Monotone stopping problems and continuous time processes. **80g:60047**
Jiřina, Miloslav A biased roulette. **80h:60060**
Kohlmann, Michael *See* **Beekes, Bernd, 80l:60056**
Krengel, Ulrich (*with* Sucheston, Louis) Temps d'arrêt et tactiques pour des processus indexés par un ensemble ordonné. (English summary) **80m:60055**
See also **Brunel, Antoine, 80b:60062**
Krylov, N. V. ★Управляемые процессы диффузионного типа. (Russian) [Controlled processes of diffusion type] **80f:60046**
Lai, Tze Leung (*with* Wijsman, Robert A.) First exit time of a random walk from the bounds $f(n) \pm cg(n)$, with applications. **80j:60066**
Ménaldi, José-Luis Sur le problème de temps d'arrêt optimal pour les diffusions réfléchies dégénérées. (English summary) **80k:60054**
Meyer, Paul-André *See* **Dellacherie, Claude, 80g:60046**
Mucci, A. G. Existence and explicit determination of optimal stopping times. **80k:60055**
Robin, Maurice *See* **Friedman, Avner, 80j:60065**
Rutkowski, Marek The optimal stopping problem with incomplete information. **80c:60063**
Šaliauskill, M. A. Optimal stopping of continuous time random processes and stochastic differential representations for the values. (Russian. Lithuanian and English summaries) **80k:60056**
Schmitz, Norbert *See* **Irle, Albrecht, 80i:60059**
Semenov, A. T. Bemerkungen zur Waldschen Identität. **80b:60064**
Sucheston, Louis *See* **Krengel, Ulrich, 80m:60055**
Sudderth, William D. *See* **Dubins, Lester E., 80f:60044**
Tanaki, Mitsushi A secretary problem with double choices. (Japanese summary) **80m:60056**
Wijsman, Robert A. *See* **Lai, Tze Leung, 80j:60066**
Zabczyk, Jerzy *See* **Cowan, Richard, 80c:60059**
Zame, Alan *See* **Chen, Robert, 80j:60064**

Secondary classifications:

Cairoli, R. (*with* Walsh, John B.) Régions d'arrêt, localisations et prolongements de martingales. **(80k:60063)**
Chow, Yuan Shih (*with* Teicher, Henry) ★Probability theory. **(80a:60004)**
Friedman, Avner Optimal stopping problems in stochastic control. **(80l:93066)**
Greenwood, Priscilla (*with* Shaked, Moshe) Dual pairs of stopping times for random walk. **(80a:60089)**
Jeulin, T. (*with* Yor, Marc) Grossissement d'une filtration et semi-martingales: formules explicites. **(80j:60071)**
(*with* Yor, Marc) Nouveaux résultats sur le grossissement des tribus. **(80j:60072)**
Lootgieter, J.-C. Sur la répartition des suites de Kakutani. II. (English summary) **(80a:60110)**
Lorenzen, Thomas J. Generalizing the secretary problem. **(80d:62069)**
Ménaldi, José-Luis Le principé de séparation pour le problème de temps d'arrêt optimal. **(80j:93117)**
Rebolledo, Rolando Sur les temps d'arrêt et la topologie étroite. (English summary) **(80k:60010)**
Shaked, Moshe *See* **Greenwood, Priscilla, (80a:60089)**
Teicher, Henry *See* **Chow, Yuan Shih, (80a:60004)**
Walsh, John B. *See* **Cairoli, R., (80k:60063)**
Yor, Marc *See* **Jeulin, T., (80j:60071)** *and* **Jeulin, T., (80j:60072)**

60G42 Martingales with discrete parameter

Blake, Louis H. Convergent processes, projective systems of measures and martingale decompositions. **80h:60061**
Brémaud, Pierre Streams of a $M/M/1$ feedback queue in statistical equilibrium. **80c:60064**
Brossard, Jean Généralisation des inégalités de Burkholder et Gundy aux martingales régulières à deux indices. (English summary) **80d:60060**
(*with* Chevalier, Lucien) Espaces H^p de martingales bi-browniennes. (English summary) **80k:60057**
Burkholder, D. L. A sharp inequality for martingale transforms. **80j:60067**
Chen, Louis H. Y. A martingale identity and a conditional strong law. **80k:60058**
A martingale inequality for the square and maximal functions. **80k:60059**
Chen, Pei De Orthogonal stochastic measures generated by square-integrable martingales. (Chinese) **80i:60060**
Chevalier, Lucien Quelques inégalités sur le couple $(X^*, S(X))$ associé à une martingale X. (English summary) **80d:60061**
Un nouveau type d'inégalités pour les martingales discrètes. (English summary) **80i:60061**
See also **Brossard, Jean, 80k:60057**
Dubins, Lester E. (*with* Pitman, Jim) A pointwise ergodic theorem for the group of rational rotations. **80i:60062**
Feiste, Uwe Projective limits and martingales. **80l:60063**
Ghosh, S. Four results concerning the theory of measures. **80l:60064**
Kesten, Harry The speed of convergence of a martingale. **80k:60060**
Korzeniowski, Andrzej Martingales in Banach spaces for which the convergence with probability one, in probability and in law coincide. **80a:60064**
Lenglart, Erik Sur les sous martingales généralisées discrètes. **80m:60057**
LePage, Raoul A maximal equality and its application in vector spaces. **80d:60062**
Lepingle, Dominique Correction à: "Sur certains espaces de martingales localement de carré intégrable" (Séminaire de Probabilités, X (Seconde partie: Théorie des intégrales stochastiques, Univ. Strasbourg, Strasbourg, année universitaire 1974/1975), pp. 401–413, Lecture Notes in Math., Vol. 511, Springer, Berlin, 1976) par Maurizio Pratelli. **80e:60060**
Une inégalité de martingales. **80i:60065**
Métraux, C. Quelques inégalités pour martingales à paramètre bidimensionnel. **80l:60066**
Millet, Annie (*with* Sucheston, Louis) La convergence essentielle des martingales bornées dans L^1 n'implique pas la condition de Vitali V. (English summary) **80b:60065**
Mogyoródi, J. Remark on a theorem of J. Neveu. **80j:60068**
Pitman, Jim *See* **Dubins, Lester E., 80i:60062**
Pittenger, Arthur O. Note on a square function inequality. **80j:60069**
(Pratelli, Maurizio) *See* **Lepingle, Dominique, 80e:60060**
Rubík, František On conditional expectations of vector valued variables. (Russian summary) **80a:60065**
Rychlik, Z. Martingale random central limit theorems. **80k:60061**
Sucheston, Louis *See* **Millet, Annie, 80b:60065**
Szulga, Jerzy Boundedness and convergence of Banach lattice valued submartingales. **80d:60063**
Uchiyama, Akihito Weight functions on probability spaces. **80b:60066**

Secondary classifications:

Aldous, D. J. Unconditional bases and martingales in $L_p(F)$. **(80b:60009)**
Bellow, Alexandra Submartingale characterization of measurable cluster points. **(80g:60044)**
Chatterji, S. D. The Radon-Nikodým property. **(80h:46064)**
Durrett, Richard (*with* Resnick, Sidney I.) Functional limit theorems for dependent variables. **(80b:60048)**
Hall, Peter On the Skorokhod representation approach to martingale invariance principles. **(80c:60036)**
Isaac, Richard Markov-dependent σ-fields and conditional expectations. **(80l:60037)**
Korzeniowski, Andrzej An analog of Itô and Nisio's theorem for weak martingales in Banach spaces. (Russian summary) **(80l:60004)**
Mogyoródi, J. (*with* Somogyi, Á.) A convergence theorem and a strong law of large numbers for martingales. **(80l:60040)**
Nguyen, Hung Trung (*with* Pham Dinh Tuan) Loi des grands nombres pour les martingales et application à la statistique. (English summary) **(80e:60041)**
Pellaumail, Jean An inequality for the semi-martingales application to stochastic differential equations. **(80e:60075)**
Pham Dinh Tuan *See* **Nguyen, Hung Trung, (80e:60041)**
Protter, Philip $\mathcal{H}^p$ stability of solutions of stochastic differential equations. **(80e:60077)**
Rebolledo, Rolando Martingales et convergence étroite de mesures de probabilité. **(80j:60007)**

Resnick, Sidney I. *See* **Durrett, Richard, (80b:60048)**
Sen, Pranab Kumar Invariance principles for the coupon collector's problem: a martingale approach. **(80e:60034)**
Somogyi, Á. *See* **Mogyoródi, J., (80l:60040)**
Yoshihara, Ken-ichi A weak convergence theorem for functionals of sums of martingale differences. **(80e:60036)**

60G44 Martingales with continuous parameter

Barlow, M. T. Study of a filtration expanded to include an honest time. **80k:60062**
Bonami, Aline (*with* Lepingle, Dominique) Fonction maximale et variation quadratique des martingales en présence d'un poids. **80l:60067**
Brémaud, Pierre (*with* Yor, Marc) Changes of filtrations and of probability measures. **80b:60062**
Cairoli, R. (*with* Walsh, John B.) Régions d'arrêt, localisations et prolongements de martingales. **80k:60063**
Chevalier, Lucien Démonstration "atomique" des inégalités de Burkholder-Davis-Gundy. **80m:60058**
Chou, Ching Sung Extension au cas continu d'un théorème de L. E. Dubins. **80l:60068**
Föllmer, Hans Quasimartingales à deux indices. (English summary) **80c:60065**
Gal'čuk, L. I. Martingales on processes with independent increments. (Russian) **80e:60061**
Garcia, M. (*with* Maillard, P.; Peltraut, Y.) Une martingale de saut multiplicatif donné. **80g:60048**
(*with* Maillard, P.; Peltraut, Y.) Sur la structure de certaines familles de tribus. (English summary) **80a:60066**
Ghoussoub, Nassif (*with* Talagrand, Michel) A generalized Chacon's inequality and order convergence of processes. **80d:60064**
Hadžiev, Dimit"r I. The structure of Gaussian martingales. (Russian) **80k:60064**
Horowitz, Joseph Optional supermartingales and the Andersen-Jessen theorem. **80g:60049**
Jacod, Jean Projection prévisible et décomposition multiplicative d'une semi-martingale positive. **80j:60070**
Jeulin, T. (*with* Yor, Marc) Grossissement d'une filtration et semi-martingales: formules explicites. **80j:60071**
(*with* Yor, Marc) Nouveaux résultats sur le grossissement des tribus. **80j:60072**
Kazamaki, Norihiko A remark on a problem of Girsanov. **80j:60073**
A property of BMO-martingales. **80g:60050**
A note on exponential martingales. **80a:60067**
A sufficient condition for the uniform integrability of exponential martingales. **80b:60063**
An elementary proof of a theorem of Novikov on exponential martingales. **80i:60069**
Lenglart, Erik Convergence comparée des processus. **80m:60059**
Lepingle, Dominique Sur certains commutateurs de la théorie des martingales. **80j:60074**
(*with* Mémin, Jean) Sur l'intégrabilité uniforme des martingales exponentielles. **80h:60064**
See also **Bonami, Aline, 80l:60067**
Maillard, P. *See* **Garcia, M.; et al., 80a:60066** *and* **Garcia, M.; et al., 80g:60048**
Mémin, Jean Décompositions multiplicatives de semimartingales exponentielles et applications. **80b:60065**
See also **Lepingle, Dominique, 80h:60064**
Meyer, Paul-André Correction à: "Sur un théorème de C. Stricker" (Séminaire de Probabilités, XI (Univ. Strasbourg, Strasbourg, 1975/1976), pp. 482–489, Lecture Notes in Math., Vol. 581, Springer, Berlin, 1977). **80e:60062**
Sur un théorème de J. Jacod. **80j:60075**
Millet, Annie Sur la caractérisation des conditions de Vitali par la convergence essentielle des martingales. (English summary) **80l:60070**
Peltraut, Y. *See* **Garcia, M.; et al., 80a:60066** *and* **Garcia, M.; et al., 80g:60048**
Protter, Philip (*with* Sharpe, Michael J.) Martingales with given absolute value. **80j:60076**
Rebolledo, Rolando Sur le théorème de la limite centrale pour les martingales locales. (English summary) **80d:60065**
(de Sam Lazaro, J.) *See* **Yor, Marc, 80m:60060**
Sharpe, Michael J. *See* **Protter, Philip, 80j:60076**
Stoica, L. On two-parameter semimartingales. **80i:60071**
Stricker, Christophe Une remarque sur les changements de temps et les martingales locales. **80g:60051**
(*with* Yor, Marc) Calcul stochastique dépendant d'un paramètre. **80f:60047**
Talagrand, Michel *See* **Ghoussoub, Nassif, 80d:60064**
Walsh, John B. Convergence and regularity of multiparameter strong martingales. **80d:60066**
See also **Cairoli, R., 80k:60063**
Wong, E. A martingale approach to random fields. **80a:60068**
Yor, Marc Quelques résultats sur certaines mesures extrémales. Applications à la représentation des martingales. **80h:60066**
Grossissement d'une filtration et semi-martingales: théorèmes généraux. **80i:60067**
Sous-espaces denses dans L^1 ou H^1 et représentation des martingales. **80m:60060**
See also **Stricker, Christophe, 80f:60047**; **Brémaud, Pierre, 80b:60062**; **Jeulin, T., 80j:60071** *and* **Jeulin, T., 80j:60072**

Secondary classifications:

Al-Hussaini, Ata (*with* Elliott, Robert J.) Weak martingales associated with a two parameter jump process. **(80m:60065)**
Bakry, D. Sur la régularité des trajectoires des martingales à deux indices. **(80m:60066)**
Elliott, Robert J. *See* **Al-Hussaini, Ata, (80m:60065)**
Ethier, S. N. Limit theorems for absorption times of genetic models. **(80h:60045)**
Gal'čuk, L. I. On the existence and uniqueness of solutions of stochastic equations with respect to semimartingales. (Russian. English summary) **(80h:60076)**
Kazamaki, Norihiko The equivalence of two conditions on weighted norm inequalities for martingales. **(80j:60077)**
Mazziotto, Gérald (*with* Szpirglas, Jacques) Calcul stochastique pour des semi-martingales de Poisson à deux paramètres. (English summary) **(80c:60072)**
Métivier, Michel Stochastic integration with respect to Hilbert valued martingales, representation theorems and infinite-dimensional filtering. **(80j:60089)**
Ouvrard, Jean-Yves Martingale projection and linear filtering in Hilbert spaces. I. The theory. **(80a:93169a)**
Linear filtering in Hilbert spaces. II. An application to the smoothing theory for hereditary systems with observation delays. **(80a:93169b)**
Protter, Philip Markov solutions of stochastic differential equations. **(80l:60085)**
Stricker, Christophe Les ralentissements en théorie générale des processus. **(80i:60046)**
Szpirglas, Jacques *See* **Mazziotto, Gérald, (80c:60072)**
Wong, E. A martingale theory of random fields. **(80c:60074)**
Yan, Jia An Stochastic integrals of measurable processes with respect to local martingales. (Chinese. English summary) **(80h:60078)**

60G46 Martingales and classical analysis

Dellacherie, Claude (*with* Meyer, Paul-André; Yor, Marc) Sur certaines propriétés des espaces de Banach H^1 et BMO. **80l:60072**
Getoor, Ronald K. Homogeneous potentials. **80e:60063**
Kazamaki, Norihiko The equivalence of two conditions on weighted norm inequalities for martingales. **80j:60077**
The martingale version of a theorem of Sarason on the class VMO. **80j:60078**
Maurey, Bernard Plongement de H_1 dans un espace à base inconditionnelle. (English summary) **80k:60065**
Isomorphismes entre espaces H_1. (English summary) **80d:60067**
Meyer, Paul-André *See* **Dellacherie, Claude; et al., 80l:60072**
Pratelli, Maurizio Une version probabiliste d'un théorème d'interpolation de G. Stampacchia. **80l:60073**
Schipp, F. On a generalization of the martingale maximal theorem. **80k:60066**
Yor, Marc Inégalités entre processus minces applications. (English summary) **80b:60067**
See also **Dellacherie, Claude; et al., 80l:60072**

Secondary classifications:

Chao, J. A. Conjugate characterizations of H^1 dyadic martingales. **(80h:43002)**
Meyer, Paul-André Inégalités de normes pour les intégrales stochastiques. **(80e:60073)**
Rebolledo, Rolando Sur les applications de la théorie des martingales à l'étude statistique d'une famille de processus ponctuels. **(80a:62160)**
Uchiyama, Akihito Weight functions on probability spaces. **(80b:60066)**

60G48 Generalizations of martingales

Bellow, Alexandra Some aspects of the theory of vector-valued amarts. **80a:60069**
Blake, Louis H. Every amart is a martingale in the limit. **80b:60068**
Weak submartingales in the limit. **80i:60074**
Borodin, A. N. Quasi-martingales. (Russian. English summary) **80d:60068**
Bru, Bernard (*with* Heinich, Henri) Sur les suites de mesures vectorielles adaptées. (English summary) **80e:60064**
Cairoli, R. Une représentation intégrale pour les martingales fortes. **80j:60079**
Choi, Bong Dae The Riesz decomposition of vector-valued uniform amart for continuous parameter. **80a:60070**
Dorogovcev, A. Ja. (*with* Knopov, P. S.) The weak convergence of a sequence of two-parameter martingales. (Russian. English summary) **80c:60066**
Engelbert, H. J. (*with* Širjaev, A. N.) On the sets of convergence of generalized submartingales. **80m:60061**
Fouque, Jean-Pierre Régularité des trajectoires des amarts et hyperamarts réels. (English summary) **80m:60062**
Enveloppe de Snell et théorie générale des processus. (English summary) **80m:60063**
Ghoussoub, Nassif Orderamarts: a class of asymptotic martingales. **80i:60075**
Summability and vector amarts. **80i:60076**
Guyon, Xavier (*with* Prum, Bernard) Martingales faibles sur $[0, 1]^2$: trace sur un chemin et applications de la formule de Itô. (English summary) **80b:60069**
Heinich, Henri Martingales asymptotiques pour l'ordre. (English summary) **80c:60067**
See also **Bru, Bernard, 80e:60064**
Knopov, P. S. *See* **Dorogovcev, A. Ja., 80c:60066**
Korzeniowski, Andrzej A proof of the ergodic theorem in Banach spaces via asymptotic martingales. (Russian) **80g:60052**
Krengel, Ulrich (*with* Sucheston, Louis) On semiamarts, amarts, and processes with finite value. **80g:60053**
Landers, Dieter (*with* Rogge, Lothar) Martingale representation in uniformly convex spaces. **80e:60065**
Millet, Annie (*with* Sucheston, Louis) Sur la caractérisation des conditions de Vitali par la convergence essentielle de classes d'amarts. (English summary) **80b:60070**
(*with* Sucheston, Louis) Characterizations of Vitali conditions with overlap in terms of convergence of classes of amarts. **80j:60080**
Morkvėnas, R. A characterization of multiparameter quasimartingales. (Russian. Lithuanian and English summaries) **80k:60067**
Prum, Bernard *See* **Guyon, Xavier, 80b:60069**
Rogge, Lothar *See* **Landers, Dieter, 80e:60065**
Schmidt, Klaus Espaces vectoriels réticulés, décompositions de Riesz, et caractérisations de certains processus de fonctions d'ensembles. (English summary) **80h:60068**
Širjaev, A. N. *See* **Engelbert, H. J., 80m:60061**
Sucheston, Louis *See* **Millet, Annie, 80b:60070**; **Krengel, Ulrich, 80g:60053** *and* **Millet, Annie, 80j:60080**

Secondary classifications:

Schmidt, Klaus Sur la convergence d'une amartingale bornée et un théorème de Chatterji. (English summary) **(80i:28009)**
Skorohod, A. V. ★Случайные линейные операторы. (Russian) [Random linear operators] **(80i:60090)**
Yor, Marc Grossissement d'une filtration et semi-martingales: théorèmes généraux. **(80h:60067)**

60G50 Sums of independent random variables

Gut, Allan Moments of the maximum of normed partial sums of random variables with multidimensional indices. **80k:60068**
On the integrability of $\sup|S_n/n|$ for subsequences. **80k:60069**

Secondary classifications:

Anan'evskiĭ, S. M. Concentration functions. (Russian. English summary) **(80h:60031)**
Beck, Jon M. A uniform estimate for the sum of independent R.V.'s with an application to Stein's lemma. (Russian summary) **(80a:60024)**
Chow, Yuan Shih (*with* Lai, Tze Leung) Paley-type inequalities and convergence rates related to the law of large numbers and extended renewal theory. **(80c:60048)**
Lai, Tze Leung *See* **Chow, Yuan Shih, (80c:60048)**
Meredov, B. A general estimate for the concentration function. (Russian) **(80m:60037)**
Nagaev, S. V. Large deviations of sums of independent random variables. **(80i:60032)**
Nevzorov, V. B. The maximum of cumulative sums for the Cauchy distribution. (Russian. English summary) **(80k:60032)**
Petrov, V. V. A limit theorem for sums of independent nonidentically distributed random variables. (Russian. English summary) **(80i:60041)**
Takács, Lajos On fluctuations of sums of random variables. **(80g:60069)**

60G55 Point processes

Aalen, Odd O. (*with* Hoem, Jan M.) Random time changes for multivariate counting processes. **80b:60071**
Correction: "Weak convergence of stochastic integrals related to counting processes" (Z. Wahrsch. Verw. Gebiete **38** (1977), no. 4, 261–277). **80d:60069**
Ammann, Larry P. (*with* Thall, Peter F.) Count distributions, orderliness and invariance of Poisson cluster processes. **80h:60069**
(Bartoszewicz, Jaroslaw) *See* **Cowan, Richard, 80i:60078**
Berman, Mark Regenerative multivariate point processes. **80a:60071**
Brown, Tim Position dependent and stochastic thinning of point processes. **80i:60077**
Cowan, Richard An introduction to the theory of point processes. (Polish) **80i:60078**
Homogeneous line-segment processes. **80m:60064**
Cranwell, R. M. (*with* Weiss, N. A.) A strong law of large numbers for stationary point processes. **80b:60072**
Feigin, Paul D. On the characterization of point processes with the order statistic property. **80d:60070**
Fieger, W. *r*-te Momente von Punktprozessen. (English summary) **80h:60070**
Fischer, Hans Jürgen A simple flow of σ-algebras generated by a general point process. (Russian. English summary) **80c:60068**
Fleischmann, Klaus Subkritische räumlich homogene Verzweigungsprozesse. II. **80b:60073**
A continuity theorem for clustering. (Lithuanian and Russian summaries) **80e:60066**
Griffiths, R. C. (*with* Milne, R. K.) A class of bivariate Poisson processes. **80c:60069**
Gurin, L. S. A problem connected with a Poisson flow. (Russian) **80e:60067**
Hoem, Jan M. *See* **Aalen, Odd O., 80b:60071**
Kallenberg, Olav On the independence of velocities in a system of noninteracting particles. **80a:60072**
On the asymptotic behavior of line processes and systems of non-interacting particles. **80a:60073**
Karr, Alan F. Derived random measures. **80a:60074**
König, D. (*with* Rolski, T.; Schmidt, V.; Stoyan, Dietrich) Stochastic processes with imbedded marked point processes (PMP) and their application in queueing. (German and Russian summaries) **80e:60068**
Lai, Chin Diew An example of Wold's point processes with Markov-dependent intervals. **80f:60048**
A note on the variance time curve of a Wold's point process. **80a:60075**
Laslett, G. M. Mixing of cluster point processes. **80b:60074**
Matthes, Klaus (*with* Warmuth, Walter; Mecke, Joseph) Bemerkungen zu einer Arbeit: "Integral and differential characterizations of the Gibbs process" [Math. Nachr. **88** (1979), 105–115; MR 80i:60081a] von Nguyen Xuan Xanh und Hans Zessin. **80i:60081b**
Mecke, Joseph An explicit description of Kallenberg's lattice type point process. **80i:60079**
See also **Matthes, Klaus; et al., 80i:60081b**
Milne, R. K. *See* **Griffiths, R. C., 80c:60069**
Neuts, Marcel F. A versatile Markovian point process. **80i:60080**
Nguyen, Xuan-Xanh (*with* Zessin, Hans) Integral and differential characterizations of the Gibbs process. **80i:60081a**
See also **Matthes, Klaus; et al., 80i:60081b**
Papangelou, F. On the entropy rate of stationary point processes and its discrete approximation. **80b:60075**
Puri, Prem S. A limit theorem for point processes with applications. **80a:60076**
Rolski, T. *See* **König, D.; et al., 80e:60068**
Schmidt, V. *See* **König, D.; et al., 80e:60068**
Stoyan, Dietrich *See* **König, D.; et al., 80e:60068**
Stützer, Hans-Jürgen Sekundärgrössen unbegrenzt teilbarer Punktprozesse. II. **80b:60076**
Thall, Peter F. *See* **Ammann, Larry P., 80h:60069**
Warmuth, Walter *See* **Matthes, Klaus; et al., 80i:60081b**
Watanabe, Shinzo Point processes and martingales. **80h:60071**
Weiss, N. A. *See* **Cranwell, R. M., 80b:60072**
Zessin, Hans *See* **Nguyen, Xuan-Xanh, 80i:60081a** *and* **Matthes, Klaus; et al., 80i:60081b**

Secondary classifications:

Andersen, Per Kragh Filtered renewal processes with a two-sided impact function. **(80j:60114)**
Cerasoli, Mauro Binomial enumeration and compound stochastic Poisson processes. (Italian. English summary) **(80k:05008)**
Cranwell, R. M. (*with* Weiss, N. A.) A central limit process theorem for mixing stationary point processes. **(80g:60019)**
Dawson, Donald A. (*with* Ivanoff, G.) Branching diffusions and random measures. **(80d:60106)**
Durrett, Richard (*with* Resnick, Sidney I.) Functional limit theorems for dependent variables. **(80b:60048)**
Fellous, A. (*with* Granara, J.; Krickeberg, Klaus) Statistics of stationary oriented line Poisson processes in the plane. **(80b:60024)**
Granara, J. *See* **Fellous, A.; et al., (80b:60024)**
Ivanoff, G. *See* **Dawson, Donald A., (80d:60106)**
Jacob, Pierre Sur diverses convergences stochastiques des processus ponctuels composés. (English summary) **(80d:60010)**
Jolivet, E. Caractérisation et test du caractère agrégatif des processus ponctuels stationnaires sur $\mathbf{R}^2$. **(80b:62102)**
Krée, Paul Methods of functional analysis in the study of random phenomena. **(80f:60068)**
Krickeberg, Klaus *See* **Fellous, A.; et al., (80b:60024)**
Krjukov, V. I. Markov interaction processes and neuronal activity. **(80e:60117)**
Leadbetter, M. R. Extreme value theory under weak mixing conditions. **(80k:60083)**
Nawrotzki, Kurt Einige Bemerkungen zur Verwendung der Palmschen Verteilung in der Bedienungstheorie. (English and Russian summaries) **(80d:60136)**
Rebolledo, Rolando Sur les applications de la théorie des martingales à l'étude statistique d'une famille de processus ponctuels. **(80a:62160)**
Resnick, Sidney I. *See* **Durrett, Richard, (80b:60048)**
Warmuth, Walter Kritische räumlich homogene Verzweigungsprozesse mit abzählbarer Typenmenge. **(80e:60097)**
Weiss, N. A. *See* **Cranwell, R. M., (80g:60019)**
Wickwire, K. The expected first-passage time for a sufficient statistic arising in the Poisson disorder problem. **(80g:62074)**

60G57 Random measures

Acquaviva, Antoine Partitions et mesures aléatoires. Mesures dominantes. (English summary) **80b:60077**
Kallenberg, Olav L_p-intensities of random measures. **80j:60081**
Khalili, Siamak Independently scattered measures. **80j:60082**
Mecke, Joseph A remark on the construction of random measures. **80f:60049**
Thornett, M. L. A class of second-order stationary random measures. **80k:60070**

60G60 Random fields

Al-Hussaini, Ata (*with* Elliott, Robert J.) Weak martingales associated with a two parameter jump process. **80m:60065**
Bakry, D. Sur la régularité des trajectoires des martingales à deux indices. **80m:60066**
Benassi, Albert Processus gaussiens, markoviens d'ordre p, fortement markoviens d'ordre p et problème de Dirichlet stochastique. (English summary) **80j:60083**
Brandstädt, A. A property of homogeneous Gaussian L-fields. (Russian. English summary) **80h:60072**
Dobrušin, R. L. Gaussian and their subordinated self-similar random generalized fields. **80c:60069**
(*with* Surgailis, D.) On the innovation problem for Gaussian Markov random fields. **80j:60084**
Elliott, Robert J. *See* **Al-Hussaini, Ata, 80m:60065**
Guyon, Xavier (*with* Prum, Bernard) Propriétés de Markov au sens de Hida et représentations de Goursat pour des processus à indice dans R ou $\mathbf{R}^2$. (English summary) **80b:60078**
(*with* Prum, Bernard) Propriétés markoviennes des martingales fortes gaussiennes sur $\mathbf{R}^2$. (English summary) **80c:60070**
Kalnauskaitė, Nijolė The local growth of trajectories of random fields with independent increments. I. (Russian. Lithuanian and English summaries) **80g:60054**
Lifšic, M. A. The representation of Lévy fields by indicators. (Russian. English summary) **80h:60073**
Nosko, V. P. The mean number of characteristic level curve points of a random field on the plane. (Russian. English summary) **80m:60067**
Prum, Bernard *See* **Guyon, Xavier, 80b:60078** *and* **Guyon, Xavier, 80c:60070**
Surgailis, D. On the Markov property of a class of linear infinitely divisible fields. **80j:60085**
See also **Dobrušin, R. L., 80j:60084**
Zlačenko, N. M. The local growth of random fields with independent increments. (Russian. English summary) **80d:60071**

Secondary classifications:

Adler, Robert J. The uniform dimension of the level sets of a Brownian sheet. **(80a:60102)**
Cabaña, Enrique M. The Kolmogorov equation for a plane barrier problem. **(80m:60084)**
Carnal, Étienne Propriétés markoviennes des produits tensoriels de covariances markoviennes. (English summary) **(80h:60054)**

Cuzick, Jack Some local properties of Gaussian vector fields. (80a:60040)
Deo, Chandrakant M. (*with* Wong, H. Ship-Fah) On quadratic variation of Gaussian random fields. (Russian) (80a:60041)
Dobrušin, R. L. (*with* Minlos, R. A.) Polynomials in a generalized random field and its moments. (Russian. English summary) (80j:60055)
Ekhaguere, G. O. S. A class of Gaussian fields of Markov type. (81k:81125)
Hanin, K. M. (*with* Sinaĭ, Ja. G.) Existence of free energy for models with long-range random Hamiltonians. (80g:82009)
Jadrenko, M. Ì. *See* Leonenko, M. M., (80c:60050)
Kalinauskaitė, Nijolė The maximum of stable random fields with independent increments. (Russian. Lithuanian and English summaries) (80e:60090)
Kesten, Harry (*with* Papanicolaou, George C.) A limit theorem for turbulent diffusion. (80k:60035b)
(*with* Papanicolaou, George C.) A limit theorem for turbulent diffusion. (80k:60035a)
Leonenko, M. M. (*with* Jadrenko, M. Ì.) An invariance principle for homogeneous and isotropic random fields. (Russian. English summary) (80c:60050)
Minlos, R. A. *See* Dobrušin, R. L., (80j:60055)
Morkvėnas, R. A characterization of multiparameter quasimartingales. (Russian. Lithuanian and English summaries) (80k:60067)
Nosko, V. P. The definition of the number of excursions above fixed level by a random field. (Russian. English summary) (80i:60052)
Novikov, E. A. (*with* Sedov, Ju. B.) Stochastic properties of a four-vortex system. (80g:76026)
Papanicolaou, George C. *See* Kesten, Harry, (80k:60035a) *and* Kesten, Harry, (80k:60035b)
Pitt, Loren D. (*with* Tran, Lanh T.) Local sample path properties of Gaussian fields. (80g:60035)
Preston, Chris Canonical and microcanonical Gibbs states. (80e:60118)
Sedov, Ju. B. *See* Novikov, E. A., (80g:76026)
Shiga, Tokuzo A remark on infinite-dimensional Wiener processes with interactions. (80d:60139)
Sinaĭ, Ja. G. *See* Hanin, K. M., (80g:82009)
Surgailis, D. An expansion of the free Markov field. (Russian. Lithuanian and English summaries) (80e:82029)
Tran, Lanh T. *See* Pitt, Loren D., (80g:60035)
Wong, H. Ship-Fah *See* Deo, Chandrakant M., (80a:60041)

60G99 None of the above, but in this section

Bol'šakov, I. A. (*with* Rakočić, V. S.) ★Прикладная теория случайных потоков. (Russian) [Applied theory of random flows] 80g:60055
Brunel, Antoine (*with* Sucheston, Louis) Sur l'existence de dominants exacts pour un processus sur-additif. (English summary) 80e:60070
Herkenrath, Ulrich The associated Markov process of generalized random systems with complete connections. 80g:60056
Istrăţescu, Vasile I. *See* Onicescu, Octav, 80e:60071
Landers, Dieter (*with* Rogge, Lothar) On linearity of *s*-predictors. 80h:60074
Onicescu, Octav (*with* Istrăţescu, Vasile I.) Approximation theorems for random functions. II. (Italian summary) 80e:60071
Płuciańska, Agnieszka Some transformations of multi-dimensional quasidiffusion processes. 80d:60072
Pratihari, D. *See* Samal, G., 80i:60082
Rakočić, V. S. *See* Bol'šakov, I. A., 80g:60055
Rogge, Lothar *See* Landers, Dieter, 80h:60074
Rosenblatt, Murray Some remarks on a mixing condition. 80k:60071a
Correction to: "Some remarks on a mixing condition" [Ann. Probab. 7 (1979), no. 1, 170–172; MR 80k:60071a]. 80k:60071b
Samal, G. (*with* Pratihari, D.) Strong result for real zeros of random polynomials. II. 80i:60082
Sambandham, M. On the real roots of the random algebraic equation. 80c:60071
Schmidt, Klaus Sur la valeur d'un processus de fonctions d'ensembles. (English summary) 80m:60068
Sucheston, Louis *See* Brunel, Antoine, 80e:60070
Zidăroiu, Corneliu Stability properties for the functional equation occurring in the study of random decision systems with complete connections. 80b:60079

Secondary classifications:

Barakat, Richard The distribution of values of trigonometric sums with linearly independent frequencies: Kac's problem revisited. (80a:42012)
Lewis, Peter A. W. (*with* Shedler, Gerald S.) Simulation of nonhomogeneous Poisson processes by thinning. (80k:68089)
Medvedev, N. V. Regularized stochastic splines (*R*-splines). (Russian) (80b:41005)
Ruckebusch, Guy On the theory of Markovian representation. (80e:93150)
Shedler, Gerald S. *See* Lewis, Peter A. W., (80k:68089)
Ulrich, Milan The use of Boolean functions for generation of stochastic processes. (80g:94094)

60Hxx Stochastic analysis [See also 58G32.]

Secondary classifications:

Ahmadi, Goodarz On the mean square stability of linear difference equations. (80e:39001)
(Friedman, Avner) *See* Stochastic analysis, (80b:60006)
Komeč, A. I. *See* Vilk, M. I., (80g:35128)
(Pinsky, Mark A.) *See* Stochastic analysis, (80b:60006)
Segall, Adrian Lower estimation error bounds for Gauss-Poisson processes. (80j:93141)
Vilk, M. I. (*with* Komeč, A. I.) The solvability of the Cauchy problem for Kolmogorov's direct equation that corresponds to a stochastic equation of Navier-Stokes type. (Russian) (80g:35128)
Conference:
Stochastic Analysis *See* Stochastic analysis, (80b:60006)
Evanston, Ill. *See* Stochastic analysis, (80b:60006)
Stochastic analysis ★Stochastic analysis. (80b:60006)

60H05 Stochastic integrals

Allais, Marie-France Approximation par des intégrales de Stieltjes-Lebesgue d'intégrales stochastiques relatives au mouvement brownien indexé par $\mathbf{R}_+^4$. (English summary) 80j:60086
Berger, Marc A. (*with* Mizel, Victor J.) Theorems of Fubini type for iterated stochastic integrals. 80k:60072
Citric'kiĭ, O. Ē. *See* Mironjuk, L. N., 80d:60077
Dąbrowski, Jacek Quasidiffusion solution of stochastic differential equations. 80d:60073
Davis, M. H. A. Functionals of diffusion processes as stochastic integrals. 80j:60088
Dominique, Michel Formule de Stokes stochastique. (English summary) 80d:60074
Dozzi, Markus Intégrales stochastiques pour processus à paramètre multidimensionel: formule de Stokes et indépendance du chemin. (English summary) 80i:60083
Funaki, Tadahisa Probabilistic construction of the solution of some higher order parabolic differential equation. 80h:60075
Gal'čuk, L. I. On the existence and uniqueness of solutions of stochastic equations with respect to semimartingales. (Russian. English summary) 80k:60076
Haussmann, U. G. On the integral representation of functionals of Itô process. 80j:60087
Ikeda, Nobuyuki (*with* Manabe, Shojiro) Stochastic integral of differential forms and its applications. 80d:60075
Itô, Kiyosi Stochastic analysis in infinite dimensions. 80k:60073
Lánská, Věra *See* Mandl, Petr; et al., 80a:60077b
Lenglart, Erik Sur la localisation des intégrales stochastiques. 80e:60072
Manabe, Shojiro *See* Ikeda, Nobuyuki, 80d:60075
Mandl, Petr Elements of stochastic analysis. 80a:60077a
(*with* Lánská, Věra; Vrkoč, Ivo) Exercises in stochastic analysis. 80a:60077b
Mazziotto, Gérald (*with* Szpirglas, Jacques) Calcul stochastique pour des semi-martingales de Poisson à deux paramètres. (English summary) 80c:60072
McShane, E. J. Choosing a mathematical model for a system affected by noise. 80d:60076
Métivier, Michel Stochastic integration with respect to Hilbert valued martingales, representation theorems and infinite-dimensional filtering. 80j:60089
Meyer, Paul-André Inégalités de normes pour les intégrales stochastiques. 80e:60073
Michel, Dominique Sur le calcul intégral stochastique à deux paramètres. (English summary) 80b:60080
Mironjuk, L. N. (*with* Citric'kiĭ, O. Ē.) On the Riesz-Markov theorem for stochastic vector measures. (Russian. English summary) 80d:60077
Mizel, Victor J. *See* Berger, Marc A., 80k:60072
Protter, Philip A comparison of stochastic integrals. 80d:60078
Srinivasan, S. K. Stochastic integrals. 80c:60073
Szpirglas, Jacques *See* Mazziotto, Gérald, 80c:60072
Tsuchiya, Masaaki On an extension of Itô's formula and its application. 80m:60069
Vrkoč, Ivo *See* Mandl, Petr; et al., 80a:60077b
Walsh, John B. Vector measures and the Itô integral. 80k:60077
Wong, E. A martingale theory of random fields. 80c:60074
Yan, Jia An Stochastic integrals of measurable processes with respect to local martingales. (Chinese. English summary) 80h:60078

Secondary classifications:

Barlow, M. T. Study of a filtration expanded to include an honest time. (80k:60062)
Brémaud, Pierre (*with* Yor, Marc) Changes of filtrations and of probability measures. (80h:60062)
Burkholder, D. L. A sharp inequality for martingale transforms. (80j:60067)
Cairoli, R. Une représentation intégrale pour les martingales fortes. (80j:60079)
Cambanis, Stamatis *See* Huang, Steel T., (80m:60047)
Chen, Pei De Orthogonal stochastic measures generated by square-integrable martingales. (Chinese) (80i:60060)
Elliott, Robert J. The martingale calculus and applications. (80j:93133)
Greckach, Wilfried (*with* Makower, André) Ein Hilbertraumwertiges stochastisches dynamisches System. (80k:93056)
Guyon, Xavier (*with* Prum, Bernard) Martingales faibles sur $[0, 1]^2$: trace sur un chemin et applications de la formule de Itô. (English summary) (80b:60069)
(*with* Prum, Bernard) Propriétés markoviennes des martingales fortes gaussiennes sur $\mathbf{R}^2$. (English summary) (80c:60070)
Hochberg, Kenneth J. A signed measure on path space related to Wiener measure. (80i:60111)
Huang, Steel T. (*with* Cambanis, Stamatis) Stochastic and multiple Wiener integrals for Gaussian processes. (80m:60047)
Kanter, Marek Random linear functionals and why we study them. (80f:60066)
Kazamaki, Norihiko A sufficient condition for the uniform integrability of exponential martingales. (80h:60063)
Makower, André *See* Greckach, Wilfried, (80k:93056)
Ogawa, Shigeyoshi Sur le produit direct du bruit blanc par lui-même. (English summary) (80b:60058)
Prum, Bernard *See* Guyon, Xavier, (80b:60069) *and* Guyon, Xavier, (80c:60070)
Šalašvili, M. A. Optimal stopping of continuous time random processes and stochastic differential representations for the values. (Russian. Lithuanian and English summaries) (80k:60056)
Skorokod, A. V. ★Случайные линейные операторы. (Russian) [Random linear operators] 80i:60090
Stricker, Christophe (*with* Yor, Marc) Calcul stochastique dépendant d'un paramètre. (80f:60047)

Wong, E. A martingale approach to random fields. **(80a:60068)**
Yor, Marc Inégalités entre processus minces applications. (English summary) **(80b:60067)**
See also **Stricker, Christophe, (80f:60047)** *and* **Brémaud, Pierre, (80h:60062)**

60H10 Stochastic ordinary differential equations [See also 34F05.]

Arnold, Ludwig (*with* Wihstutz, V.) On the stability and growth of real noise parameter-excited linear systems. **80h:60079**
Bafico, Roberto An extension of Skorohod's existence theorem. (Italian. English summary) **80g:60057**
Bene, O. Asymptotic behavior of the solution of a system of second-order linear stochastic differential equations. (Russian. English summary) **80d:60079**
Beneš, V. E. Realizing a weak solution on a probability space. **80j:60090**
Blankenship, G. (*with* Sachs, S.) Singularly perturbed linear stochastic ordinary differential equations. **80g:60058**
Da Prato, Giuseppe (*with* Iannelli, Mimmo; Tubaro, Luciano) Linear stochastic differential equations in Hilbert spaces. (Italian summary) **80j:60091**
(*with* Iannelli, Mimmo; Tubaro, Luciano) Some results on existence, uniqueness and continuous dependence for abstract stochastic differential equations. (Italian summary) **80d:60080**
(*with* Iannelli, Mimmo; Tubaro, Luciano) Dissipative functions and finite-dimensional stochastic differential equations. **80c:60075**
Doss, Halim (*with* Lenglart, Erik) Sur l'existence, l'unicité et le comportement asymptotique des solutions d'équations différentielles stochastiques. (English summary) **80c:60076**
Dubko, V. A. The first integral of a system of stochastic differential equations. (Russian) **80b:60081**
Averaging for a class of stochastic differential equations. (Russian) **80a:60078**
Elworthy, K. D. Stochastic dynamical systems and their flows. **80e:60074**
Emery, Michel Équations différentielles stochastiques lipschitziennes. **80h:60080**
Eriov, M. P. Localization of conditions on the coefficients of diffusion type equations in existence theorems. **80m:60072**
Geman, Stuart Some averaging and stability results for random differential equations. **80g:60059**
Gihman, Ĭ. Ĭ. (*with* Skorohod, A. V.) ★Controlled stochastic processes. **80h:60081**
Girko, V. L. A stochastic Ljapunov problem. (Russian. English summary) **80f:60050**
Hannsmann, U. G. Asymptotic stability of the linear Itô equation in infinite dimensions. **80b:60082**
Iannelli, Mimmo *See* **Da Prato, Giuseppe; et al., 80c:60075; Da Prato, Giuseppe; et al., 80d:60080** *and* **Da Prato, Giuseppe; et al., 80j:60091**
Kadyrova, I. I. Stochastic equations for jump-like processes. (Russian. English summary) **80m:60070**
Kistner, A. On the solution and the moments of linear systems with randomly disturbed parameters. **80j:60092**
Kolomiĕc', V. G. Asymptotic methods in the theory of nonlinear stochastic systems with a small parameter (Russian) **80d:60081**
Korostelev, A. P. Damping perturbations of dynamical systems and convergence conditions for recursive stochastic procedures. (Russian. English summary) **80j:60093**
(Kotz, Samuel) *See* **Gihman, Ĭ. Ĭ.; et al., 80h:60081**
Krasnosel'skiĭ, M. A. (*with* Pokrovskiĭ, A. V.) Natural solutions of stochastic differential equations. (Russian) **80a:60079**
Lee, Che Ping On a class of nonlinear stochastic evolution equations. **80k:60074**
Lenglart, Erik *See* **Doss, Halim, 80c:60076**
Métivier, Michel Un "lemme de Gronwall" "stochastique" et application à un théorème de stabilité pour équations différentielles stochastiques. (English summary) **80i:60084**
Moore, Marion E. Stability and boundedness results of stochastic differential equations relative to a generalized norm. **80j:60094**
Papanicolaou, George C. Asymptotic analysis of stochastic equations. **80j:60095**
Pellaumail, Jean An inequality for the semi-martingales application to stochastic differential equations. **80e:60075**
Pokrovskiĭ, A. V. *See* **Krasnosel'skiĭ, M. A., 80a:60079**
Protter, Philip Markov solutions of stochastic differential equations. **80i:60085**
$\mathcal{H}^p$ stability of solutions of stochastic differential equations. **80c:60077**
Purkert, Walter (*with* vom Scheidt, Jürgen) Randwertprobleme mit schwach korrelierten Prozessen als Koeffizienten. (English summary) **80f:60051**
(*with* vom Scheidt, Jürgen) Stochastic eigenvalue problems for differential equations. **80m:60071**
Sachs, S. *See* **Blankenship, G., 80g:60058**
vom Scheidt, Jürgen *See* **Purkert, Walter, 80f:60051** *and* **Purkert, Walter, 80m:60071**
Skorohod, A. V. *See* **Gihman, Ĭ. Ĭ., 80h:60081**
Tanaka, Hiroshi Probabilistic treatment of the Boltzmann equation of Maxwellian molecules. **80b:60083**
Stochastic differential equations with reflecting boundary condition in convex regions. **80k:60075**
Tubaro, Luciano *See* **Da Prato, Giuseppe; et al., 80c:60075; Da Prato, Giuseppe; et al., 80d:60080** *and* **Da Prato, Giuseppe; et al., 80j:60091**
Tutubalin, V. N. A new form of the law of large numbers. (Russian. English summary) **80c:60076**
Vardazarjan, V. N. Density states in homogeneous Dirac systems with model random potentials. (Russian. Armenian summary) **80h:60082**
Veretennikov, A. Ju. Strong solutions of some stochastic equations. (Russian) **80a:60080**
Wihstutz, V. *See* **Arnold, Ludwig, 80h:60079**
Wolfsohn, Aubrey Infinitely divisible stochastic differential equations in space-time. **80g:60060**
Yamada, Toshio Sur une construction des solutions d'équations différentielles stochastiques dans le cas non-lipschitzien. **80k:60076**

Secondary classifications:

Ahmadi, Goodarz Stability of stochastic linear difference-differential equations. **(80d:93065)**
Apresjan, L. On equations for mean values of linear stochastic operators depending on Markov random processes. (Russian. English summary) **(80d:82072)**
Bover, D. C. C. Moment equation methods for nonlinear stochastic systems. **(80b:93174)**
Carotenuto, L. (*with* Raiconi, G.; Di Pillo, G.) On the identification of a variable coefficient in the diffusion equation. **(80f:93079)**
Cikallo, T.-N. M. *See* **Kolomiĕc', V. G., (80m:34057)**
Di Pillo, G. *See* **Carotenuto, L.; et al., (80f:93079)**
Engl, Heinz W. Some random fixed point theorems for strict contractions and nonexpansive mappings. **(80a:60084)**
Fleming, Wendell H. Inclusion probability and optimal stochastic control. **(80k:60099)**
Exit probabilities and optimal stochastic control. **(80k:60100)**
Hadžiev, Dimit"r I. The structure of Gaussian martingales. (Russian) **(80k:60064)**
Itô, Kiyosi Stochastic analysis in infinite dimensions. **(80k:60073)**
Itoh, Shigeru Random fixed-point theorems with an application to random differential equations in Banach spaces. **(80f:60059)**
Kistner, A. Strenge Beziehungen für die Momente linearer Systeme mit zufälliger Parametererregung. **(80i:34092)**
Kohler, Werner E. The rapid reaction of two chemical species in the presence of weak random advection and molecular diffusion. **(80e:80011)**
Kolomiĕc', V. G. (*with* Cikallo, T.-N. M.) An oscillatory process in a strongly nonlinear stochastic system. (Russian. English summary) **(80m:34057)**
Kuklíková, Daniela Approximation of bivariate Markov chains by one-dimensional diffusion processes. (Czech and Russian summaries) **(80d:60026)**
Kurss, H. (*with* Vojir, W.) A resonant response to random excitation. **(80k:34076)**
Ladde, G. S. Stability technique and thought provocative dynamical systems. II. **(80k:34077)**
Langouche, F. (*with* Roekaerts, D.; Tirapegui, E.) Functional integral methods for random fields. **(80g:82011)**
Lánská, Věra *See* **Mandl, Petr; et al., (80a:60077b)**
Malliavin, Paul Un principe de transfert et son application au calcul des variations. (English summary) **(80a:58036a)**
Hypoellipticité avec dégénérescence et analyse stochastique en dimension infinie. (English summary) **(80a:58036b)**
C^k-hypoellipticity with degeneracy. **(80i:58045a)**
C^k-hypoellipticity with degeneracy. II. **(80i:58045b)**
Mandl, Petr Elements of stochastic analysis. **(80a:60077a)**
(*with* Lánská, Věra; Vrkoč, Ivo) Exercises in stochastic analysis. **(80a:60077b)**
Purkert, Walter (*with* vom Scheidt, Jürgen) Zum Mittelungsproblem bei stochastischen Eigenwertaufgaben. **(80g:60064)**
Raiconi, G. *See* **Carotenuto, L.; et al., (80f:93079)**
Rao, A. N. V. (*with* Tourgee, R. A.; Tsokos, Chris P.) Stochastic systems and integral inequalities. **(80c:93139)**
Razevig, V. D. Reduction of stochastic differential equations with small parameters and stochastic integrals. **(80a:60093)**
Roekaerts, D. *See* **Langouche, F.; et al., (80g:82011)**
Santos, Emilio Stochastic differential equations with non-Markov processes. **(80g:82018)**
vom Scheidt, Jürgen *See* **Purkert, Walter, (80g:60064)**
Spanos, P.-T.D. Stochastic analysis of oscillators with nonlinear damping. (French and German summaries) **(80j:70014)**
Tirapegui, E. *See* **Langouche, F.; et al., (80g:82011)**
Tourgee, R. A. *See* **Rao, A. N. V.; et al., (80c:93139)**
Tsokos, Chris P. *See* **Rao, A. N. V.; et al., (80c:93139)**
Vojir, W. *See* **Kurss, H., (80k:34076)**
Vrkoč, Ivo *See* **Mandl, Petr; et al., (80a:60077b)**
Yor, Marc Quelques résultats sur certaines mesures extrémales. Applications à la représentation des martingales. **(80h:60066)**

60H15 Stochastic partial differential equations [See also 35R60.]

Bahvalov, N. S. (*with* Zlotnik, A. A.) Coefficient stability of differential equations and the averaging of equations with random coefficients. (Russian) **80e:60077**
Friedman, Avner Interaction between stochastic differential equations and partial differential equations. **80k:60077**
Gihman, Ĭ. Ĭ. A mixed problem for a second-order stochastic partial differential equation of parabolic type. (Russian. English summary) **80g:60061**
Kozlov, S. M. Some questions of stochastic partial differential equations. (Russian) **80b:60063**
Pardoux, Étienne Stochastic partial differential equation for the density of the conditional law of a diffusion process with boundary. **80d:60082**
Un résultat sur les équations aux dérivées partielles stochastiques et filtrage des processus de diffusion. (English summary) **80h:60084**
Pellaumail, Jean Stabilité d'équations différentielles stochastiques hilbertiennes. (English summary) **80c:60078**
Rozanov, Jurĭĭ Anatol'evič On the paper "Markov random fields, and stochastic partial differential equations" (Mat. Sb. (N.S.) 103(145) (1977), no. 4, 590–613). (Russian) **80a:60081**
Sasagawa, T. On the stability of stochastic systems dependent on the past history. **80g:60062**
Shimizu, Akinobu Construction of a solution of a certain evolution equation. II. **80f:60052**
Ugowski, Henryk On a random linear parabolic equation. **80a:60082**
Zlotnik, A. A. *See* **Bahvalov, N. S., 80e:60077**

Secondary classifications:

Barabanenkov, Ju. N. On the relaxation of an average field in a medium with

quasi-static fluctuations. (Russian. English summary) (80d:82029)

Da Prato, Giuseppe (*with* Iannelli, Mimmo; Tubaro, Luciano) Semilinear stochastic differential equations in Hilbert spaces. (Italian summary) (80l:47056)

Dobrušin, R. L. (*with* Surgailis, D.) On the innovation problem for Gaussian Markov random fields. (80j:60084)

Glonti, O. A. A representation of the optimal filtering estimate for Markov processes that are controlled by stochastic partial integro-differential equations. (Russian. English summary) (80a:60060)

Iannelli, Mimmo *See* **Da Prato, Giuseppe; et al.,** (80l:47056)

Komeč, A. I. *See* **Višik, M. I.,** (80f:35119)

Pardoux, Étienne Filtrage de diffusions avec conditions frontières: caractérisation de la densité conditionnelle. (80a:60062)

Surgailis, D. On the Markov property of a class of linear infinitely divisible fields. (80j:60085)

See also **Dobrušin, R. L.,** (80j:60084)

Sapiŋlas, Jacques Sur l'équivalence d'équations différentielles stochastiques à valeurs mesures intervenant dans le filtrage markovien non linéaire. (80m:60054)

Tubaro, Luciano *See* **Da Prato, Giuseppe; et al.,** (80l:47056)

Višik, M. I. (*with* Komeč, A. I.) Infinite-dimensional parabolic equations connected with stochastic partial differential equations. (Russian) (80f:35119)

Wódkiewicz, K. Exact solutions of some multiplicative stochastic processes. (80f:82025a)

60H20 Stochastic integral equations

Ahmed, N. U. *See* **Teo, K. L.,** 80g:60063

Berger, Marc A. Stochastic integral equations. 80f:60053

Chojnowska-Michalik, Anna Representation theorem for general stochastic delay equations. (Russian summary) 80a:60083

Dale, A. I. On a general random Volterra integral equation. 80c:60079

On a random integral equation of the mixed Volterra-Fredholm type. 80j:60096

Lee, A. C. H. (*with* Padgett, W. J.) A random nonlinear integral equation in population growth problems. 80k:60078

Lewin, Marica On the solutions of some integral and differential equations. (Romanian summary) 80f:60054

Padgett, W. J. (*with* Rao, A. N. V.) Solution of a stochastic integral equation using integral contractors. 80f:60086

See also **Lee, A. C. H.,** 80k:60078

Rao, A. N. V. *See* **Padgett, W. J.,** 80f:60086

Römisch, Werner *See* **Schulze, Reinhard,** 80f:60055

Schulze, Reinhard (*with* Römisch, Werner) Kennwertmethoden für nichtlineare Volterrasche Integralgleichungen in stetigen stochastischen Prozessen. 80f:60055

Teo, K. L. (*with* Ahmed, N. U.) $L^p(R_0)$ ($p > 1$) stability in the mean m ($m > 1$) of a class of stochastic Volterra integral equations. 80g:60063

Thakur, L. B. On some properties of stochastic integro-differential equations. 80f:60056

Secondary classifications:

Beneš, V. E. Realizing a weak solution on a probability space. (80j:60090)

Berger, Marc A. (*with* Mizel, Victor J.) Theorems of Fubini type for iterated stochastic integrals. (80k:60072)

Gal'čuk, L. I. On the existence and uniqueness of solutions of stochastic equations with respect to semimartingales. (Russian. English summary) (80h:60076)

Mil'štein, G. N. Probabilistic solution of linear systems of elliptic and parabolic equations. (Russian. English summary) (80g:35053)

Mizel, Victor J. *See* **Berger, Marc A.,** (80k:60072)

Seikkala, Seppo On the method of successive approximations for nonlinear equations in spaces of continuous functions. (80a:47104)

Ward, James R., Jr. The implicit function theorem and a random integral equation. (80a:45003)

60H25 Random operators and equations

Adomian, George Stochastic operators and dynamical systems. 80i:60087

Bertero, M. (*with* Viano, G. A.) On probabilistic methods for the solution of improperly posed problems. (Italian summary) 80f:60057

Çapar, Ulaş Random fixed point theorems and sequential decision making in abstract spaces. 80c:60080

Engl, Heinz W. A general stochastic fixed-point theorem for continuous random operators on stochastic domains. 80f:60058

Some random fixed point theorems for strict contractions and nonexpansive mappings. 80a:60084

(*with* Nashed, M. Z.) Stochastic projectional schemes for random linear operator equations of the first and second kinds. 80m:60073

Itoh, Shigeru Random differential equations associated with accretive operators. 80b:60085

Random fixed-point theorems with an application to random differential equations in Banach spaces. 80f:60059

Kannan, Rangachary Une version stochastique du théorème de Kakutani. (English summary) 80b:60086

Lee, A. C. H. (*with* Padgett, W. J.) Random contractors with random nonlinear majorant functions. 80i:60088

Nashed, M. Z. *See* **Engl, Heinz W.,** 80m:60073

Nowak, Andrzej Random solutions of equations. 80i:60089

Padgett, W. J. *See* **Lee, A. C. H.,** 80i:60088

Reich, Simeon A random fixed-point theorem for set-valued mappings. (Italian summary) 80h:60084

Richter, Gerhard Zur Verteilung der Norm des Lösungsvektors linearer Gleichungssysteme mit zufälligen Koeffizienten. 80j:60097

Rizvi, M. Haseeb (*with* Shorrock, R. W.) On operator inequalities and projections. 80d:60083

Shorrock, R. W. *See* **Rizvi, M. Haseeb,** 80d:60083

Skorohod, A. V. ★Случайные линейные операторы. (Russian) [Random linear operators] 80i:60090

Viano, G. A. *See* **Bertero, M.,** 80f:60057

Ždanok, T. A. A probabilistic analogue of the Hahn-Banach theorem and its application to the investigation of random operator equations. (Russian. English summary) 80f:60060

Secondary classifications:

Andrus, G. F. (*with* Nishiura, Togo) Fixed-points of random set-valued maps. (80d:54052)

Figotin, A. L. *See* **Pastur, L. A.,** (80k:47031)

Nishiura, Togo *See* **Andrus, G. F.,** (80d:54052)

Pastur, L. A. (*with* Figotin, A. L.) Ergodic properties of the distribution of eigenvalues of some classes of random selfadjoint operators. (Russian) (80k:47031)

60H99 None of the above, but in this section

Grünbaum, F. Alberto An inverse eigenvalue problem for random matrices. 80c:60081

Kozlov, S. M. Averaging of random structures. (Russian) 80e:60078

Pachpatte, B. G. On a stochastic integro-differential equation in a Banach space. 80e:60079

Purkert, Walter (*with* vom Scheidt, Jürgen) Zum Mittelungsproblem bei stochastischen Eigenwertaufgaben. 80g:60064

vom Scheidt, Jürgen *See* **Purkert, Walter,** 80g:60064

Secondary classifications:

Èglite, D. A. The stability of linear stochastic difference systems. (Russian) (80d:39001)

60Jxx Markov processes

Secondary classifications:

Hoem, Jan M. Demographic incidence rates. (80b:92033)

60J05 Markov processes with discrete parameter

Ajupov, Š. A. Ergodic theorems for Markov chains on O^*-algebras. (Russian) 80c:60082

Baxter, J. R. Harmonic functions and mass cancellation. 80a:60085

Cohn, Harry On the asymptotic events of a Markov chain. 80k:60079

Fortet, R. Condition de Doeblin et quasi-compacité. (English summary) 80h:60085

Gilbert, Heinz Zum Ergodenverhalten einer Klasse homogener Markovscher Ketten. 80e:60080

Griffeath, David Coupling methods for Markov processes. 80k:60080

Karr, Alan F. Markov chains and processes with a prescribed invariant measure. 80c:60083

Lange, Kenneth On Cohen's stochastic generalization of the strong ergodic theorem of demography. 80i:60091

Laslett, G. M. (*with* Pollard, D. B.; Tweedie, Richard L.) Techniques for establishing ergodic and recurrence properties of continuous-valued Markov chains. 80e:60081

Malyšev, V. A. (*with* Men'šikov, M. V.) Ergodicity, continuity and analyticity of countable Markov chains. (Russian) 80k:60081

Men'šikov, M. V. *See* **Malyšev, V. A.,** 80k:60081

Overdijk, D. A. *See* **Simons, F. H.,** 80e:60082

Pollard, D. B. *See* **Laslett, G. M.; et al.,** 80e:60081

Simons, F. H. (*with* Overdijk, D. A.) Recurrent and sweep-out sets for Markov processes. 80e:60082

Suomela, P. Invariant measures of time-reversible Markov chains. 80d:60084

Tweedie, Richard L. Topological aspects of Doeblin decompositions for Markov chains. 80d:60085

See also **Laslett, G. M.; et al.,** 80e:60081

Secondary classifications:

Ajupov, Š. A. *See* **Sarymsakov, T. A.,** (80h:46112)

Bokučava, I. V. The central limit theorem for conditionally independent sequences. (Russian. Georgian and English summaries) (80m:60026)

Fong, Humphrey Ratio and stochastic ergodic theorems for superadditive processes. (80h:47011)

Goldstein, Sheldon Maximal coupling. (80k:60041)

Herkenrath, Ulrich The associated Markov process of generalized random systems with complete connections. (80g:60056)

Lin, Michael (*with* Sine, Robert) A spectral condition for strong convergence of Markov operators. (80d:47010)

Rosenblatt-Roth, Milla On the measure of a minimal set in Markov chains. (80m:60006)

Sarymsakov, T. A. (*with* Ajupov, Š. A.) Regularity of Markov chains on O^*-algebras. (Russian) (80h:46112)

Shiflett, Ray C. Extreme stochastic measures and Feldman's conjecture. (80h:28001)

Sine, Robert *See* **Lin, Michael,** (80d:47010)

Taylor, G. C. A topological version of some ergodic theorems. (80a:47014)

Tuominen, Pekka (*with* Tweedie, Richard L.) Exponential decay and ergodicity of general Markov processes and their discrete skeletons. (80h:60093)

Tweedie, Richard L. *See* **Tuominen, Pekka,** (80h:60093)

Vircer, A. D. Matrix and operator random products. (Russian. English summary) (80h:60018)

60J10 Markov chains with discrete parameter

Arnaud, Jean-Pierre Mesures stationnaires de libraries et récurrence. (English summary) 80c:60084

Athreya, K. B. (*with* Ney, Peter E.) A new approach to the limit theory of recurrent Markov chains. **80f:60092**

Charlot, François (*with* Ghidouche, M.; Hamami, M.) Irréductibilité et récurrence au sens de Harris des "temps d'attente" des files $GI/G/q$. (English summary) **80a:60086**

Cohn, Harry On the invariant events of a Markov chain. **80g:60065**

Cox, J. Theodore An alternate proof of a theorem of Kesten concerning Markov random fields. **80d:60086**

Federgrün, A. (*with* Hordijk, A.; Tijms, H. C.) A note on simultaneous recurrence conditions on a set of denumerable stochastic matrices. **80a:60087**

Fritz, Franz-Josef (*with* Huppert, Bertram; Willems, Wolfgang) ★Stochastische Matrizen. **80g:60066**

Georgin, J. P. Estimation et contrôle des chaînes de Markov sur des espaces arbitraires. **80b:60087**

Ghidouche, M. *See* **Charlot, François; et al., 80a:60086**

Grigorenko, L. A. σ-algebra of symmetric events for a countable Markov chain. (Russian. English summary) **80d:60087**

Hamami, M. *See* **Charlot, François; et al., 80a:60086**

Hordijk, A. *See* **Federgrün, A.; et al., 80a:60087**

Huppert, Bertram *See* **Fritz, Franz-Josef; et al., 80g:60066**

Isaacson, Dean A characterization of geometric ergodicity. **80f:60093**

Johnson, Dudley Paul Representations of general stochastic processes. **80k:60082**

Jóźwiak, Janina A method for the aggregation of a finite phase space of a homogeneous Markov chain. (Polish. Russian and English summaries) **80h:60086**

Kelson, Julian ★Markov chain models—rarity and exponentiality. **80f:60061**

Le Maire, B. (*with* Mauffrey, G.) Chaînes de Markov non homogènes à causalité constante: matrices d'écart d'homogénéité. **80h:60087**

Letac, Gérard ★Chaînes de Markov sur les permutations. **80k:60083**

Mauffrey, G. *See* **Le Maire, B., 80h:60087**

Mertens, Jean-François (*with* Samuel-Cahn, Ester; Zamir, Shmuel) Necessary and sufficient conditions for recurrence and transience of Markov chains, in terms of inequalities. **80a:60088**

Neuts, Marcel F. The probabilistic significance of the rate matrix in matrix-geometric invariant vectors. **80k:60084**

Ney, Peter E. *See* **Athreya, K. B., 80f:60092**

Pasečuk, A. È. A random walk problem in the quarter plane. (Russian) **80g:60067**

Rhoades, B. E. The convergence of matrix transforms for certain Markov chains. **80h:60088**

Samuel-Cahn, Ester *See* **Mertens, Jean-François; et al., 80a:60088**

Seneta, E. Coefficients of ergodicity: structure and applications. **80d:60088**

Syski, R. Energy of Markov chains. **80g:60068**

Tavaré, S. Sojourn times for conditioned Markov chains in genetics. **80b:60088**

Tijms, H. C. *See* **Federgrün, A.; et al., 80a:60087**

Tuominen, Pekka (*with* Tweedie, Richard L.) Markov chains with continuous components. **80d:60089**

Tweedie, Richard L. *See* **Tuominen, Pekka, 80d:60089**

Willems, Wolfgang *See* **Fritz, Franz-Josef; et al., 80g:60066**

Zamir, Shmuel *See* **Mertens, Jean-François; et al., 80a:60088**

Zubkov, A. M. Markov chains that are close to a sequence of independent trials. (Russian) **80k:60085**

Secondary classifications:

Athreya, K. B. (*with* McDonald, David R.; Ney, Peter E.) Limit theorems for semi-Markov processes and renewal theory for Markov chains. **(80f:60076)**

Borkar, Vivek (*with* Varaiya, Pravin) Adaptive control of Markov chains. **(80i:93063)**

Cocan, A. *See* **Cocan, M., (80e:15015)**

Cocan, M. (*with* Cocan, A.) On the eigenvalues of the stochastic transition function matrix of a finite Markov chain. (Romanian. German summary) **(80e:15015)**

Daley, D. J. Lattice-valued random walks with Markov chain dependent steps. **(80e:60084)**

Denny, J. L. (*with* Wright, A. L.) On tests for Markov dependence. **(80a:62131)**

Heller, Wolf-Dieter (*with* Lindenberg, Henner; Nuske, Manfred; Schriever, Karl-Heinz) ★Stochastische Systeme. **(80g:60002)**

Johnsen, Eugene C. Stochastic matrices: some results and applications. **(80g:15021)**

Klimov, G. P. Limit theorems for homogeneous Markov processes. (Russian. English summary) **(80d:60094)**

Knight, Frank B. On the absolute difference chains. **(80f:60019)**

Lai, Chin Diew Morgenstern's bivariate distribution and its application to point processes. **(80b:60031)**

Liggett, Thomas M. Random invariant measures for Markov chains, and independent particle systems. **(80b:60135)**

Lindenberg, Henner *See* **Heller, Wolf-Dieter; et al., (80g:60002)**

McDonald, David R. *See* **Athreya, K. B.; et al., (80f:60076)**

Miller, H. D. Infinite divisibility in stochastic processes. **(80h:60027)**

Ney, Peter E. *See* **Athreya, K. B.; et al., (80f:60076)**

Nuske, Manfred *See* **Heller, Wolf-Dieter; et al., (80g:60002)**

Peyrière, Jacques Processus de naissance avec interactions des voisins. (English summary) **(80i:60120)**

Qian, Min Ping Decomposition of a stationary Markov chain into a detailed balance part (reversibility) and a cyclic part. (Chinese) **(80g:82051)**

Schriever, Karl-Heinz *See* **Heller, Wolf-Dieter; et al., (80g:60002)**

Varaiya, Pravin *See* **Borkar, Vivek, (80i:93063)**

Wright, A. L. *See* **Denny, J. L., (80a:62131)**

Zaharin, O. M. Enlargement and decomposition of homogeneous Markov processes. (Russian) **(80d:60095)**

60J15 Random walk

Agrawal, M. C. A generalized one-dimensional random walk. **80f:60062**

Akmarov, I. Stability of a random walk in a strip with retarding boundaries. (Russian) **80k:60086**

Beyer, W. A. Polynomials for the moments of absorption time in the conditioned symmetric classical ruin problem. **80k:60087**

(*with* Waterman, Michael S.) Moments of absorption time for a conditioned random walk. **80c:60085**

Borovkov, A. A. Ergodic and stability theorems for random walks in a strip and their applications. (Russian. English summary) **80d:60090a**

Letter to the editors: "Ergodic and stability theorems for random walks in a strip and their applications" (Teor. Verojatnost. i Primenen. 23 (1978), no. 4, 705–714). (Russian) **80d:60090b**

Chow, Yuan Shih (*with* Lai, Tze Leung) Moments of ladder variables for driftless random walks. **80f:60063**

Daley, D. J. Return probabilities for certain three-dimensional random walks. **80e:60083**

Lattice-valued random walks with Markov chain dependent steps. **80e:60084**

Doney, R. A. Moments of ladder heights in random walks. **80m:60074**

Donsker, M. D. (*with* Varadhan, S. R. S.) On the number of distinct sites visited by a random walk. **80e:60085**

Gallardo, Léonard (*with* Schott, René) Marches aléatoires sur les espaces homogènes de certains groupes de type rigide. (English summary) **80e:60086**

Greenwood, Priscilla (*with* Shaked, Moshe) Dual pairs of stopping times for random walk. **80a:60089**

Griffeath, David Annihilating and coalescing random walks on Z_d. **80b:60089**

Guivarc'h, Yves Marches aléatoires à pas markovien. (English summary) **80i:60094**

Marches aléatoires à pas markoviens. (English summary) **80k:60088**

Gutkowicz-Krusin, Dina *See* **Ross, John; et al., 80m:60075**

Hantsch, Lutz (*with* von Waldenfels, Wilhelm) A random walk on the general linear group related to a problem of atomic physics. **80k:60089**

Hines, D. F. (*with* Thompson, Colin J.) A one-dimensional random walk with repulsion. **80m:60076**

Högnäs, Göran A note on the product of random elements of a semigroup. **80b:60090**

On recurrent random walks on abelian semigroups. **80b:60092**

On random walks with continuous components. **80b:60091**

Kaigh, W. D. An attrition problem of gambler's ruin. **80c:60086**

Kasymdžanova, M. A. Invariant Markov chains on abelian groups. (Russian) **80k:60090**

Kern, Malcolm (*with* Walter, Stanley) Ballot theorem and lattice path crossings. (French summary) **80b:60093**

Kesten, Harry Erickson's conjecture on the rate of escape of d-dimensional random walk. **80j:60098**

Lai, Tze Leung *See* **Chow, Yuan Shih, 80f:60063**

Letac, Gérard (*with* Takács, Lajos) Random walks on an m-dimensional cube. **80h:60099**

Nain, R. B. (*with* Sen, Kanwar) Transition probability matrices for correlated random walks. **80m:60077**

Oman, Samuel D. Ratio limit theorems for hitting times and hitting places. **80a:60090**

Pirdžanov, B. Time of attainment of a positive level. (Russian. English summary) **80a:60091**

Procaccia, Itamar *See* **Ross, John; et al., 80m:60075**

Ross, John (*with* Gutkowicz-Krusin, Dina; Procaccia, Itamar) Analytic results for asymmetric random walk with exponential transition probabilities. **80m:60075**

Roynette, B. Marches aléatoires sur les groupes de Lie. **80e:60087**

Saran, Jagdish (*with* Sen, Kanwar) On some joint distributions in fluctuation theory. **80m:60078b**

(*with* Sen, Kanwar) On the fluctuations of partial sums. **80m:60078a**

See also **Sen, Kanwar, 80i:60095**

Sawyer, Stanley Isotropic random walks in a tree. **80a:60092**

Schott, René *See* **Gallardo, Léonard, 80e:60086**

Sen, Kanwar (*with* Saran, Jagdish) Joint distributions based on runs and on the number of sojourns and intersections. **80i:60095**

See also **Nain, R. B., 80m:60077; Saran, Jagdish, 80m:60078a** *and* **Saran, Jagdish, 80m:60078b**

Shaked, Moshe *See* **Greenwood, Priscilla, 80a:60089**

Siegmund, D. Corrected diffusion approximations in certain random walk problems. **80i:60096**

Stam, A. J. Heavy traffic limit theorems in fluctuation theory. **80b:60094**

Takács, Lajos On fluctuations of sums of random variables. **80g:60069**

On an urn problem of Paul and Tatiana Ehrenfest. **80i:60097**

See also **Letac, Gérard, 80h:60089**

Thompson, Colin J. *See* **Hines, D. F., 80m:60076**

Varadhan, S. R. S. *See* **Donsker, M. D., 80e:60085**

von Waldenfels, Wilhelm *See* **Hantsch, Lutz, 80k:60089**

Walter, Stanley *See* **Kern, Malcolm, 80b:60093**

Waterman, Michael S. *See* **Beyer, W. A., 80c:60085**

Secondary classifications:

Borodin, A. N. Limit theorems for sums of independent random variables defined on a transient random walk. (Russian. English summary) **(80j:60029)**

Budgor, Aaron B. *See* **Robledo, Alberto, (80a:82040)**

Chang, Mou Hsiung A random walk and its LIL in a Banach space. **(80b:60015)**

Crépel, Pierre Grenzwertsätze für abhängige Zufallsvariable und Irrfahrten auf Gruppen. **(80g:60009)**

Durrett, Richard On the shape of a random string. **(80j:60030)**

Éppel', M. S. A local limit theorem for the first passage time. (Russian) **(80e:60032)**

Fereig, Nabil' (*with* Molčanov, S. A.) Random walks on abelian groups with an infinite number of generators. (Russian. English summary) **(80e:60012)**

Földes, Stéphane (*with* Gabor, G.) Note on discrete random walks. **(80e:60017)**

Gabor, G. *See* **Földes, Stéphane, (80e:60017)**

Gerl, Peter Ein Gleichverteilungssatz auf F_2. **(80m:60014)**

Griffeath, David Coupling methods for Markov processes. **(80k:60080)**

Gut, Allan Moments of the maximum of normed partial sums of random variables with multidimensional indices. **(80k:60068)**

Jamison, Benton (*with* Sine, Robert) Unique ergodicity for certain random translations. (80d:28027)
Jansen, Jacques Promenades aléatoires et filtres. (80e:60059)
Kaigh, W. D. An elementary derivation of the distribution of the maxima of Brownian meander and Brownian excursion. (80b:60105)
Kiazi, Franz Faltungen von Wahrscheinlichkeitsmassen auf diskreten Halbgruppen. (80d:43002)
Lai, Tze Leung (*with* Wijsman, Robert A.) First exit time of a random walk from the bounds $f(n) \pm cg(n)$, with applications. (80j:60066)
Mandelbrot, Benoît Colliers aléatoires et une alternative aux promenades au hasard sans boucle: les cordonnets discrets et fractals. (English summary) (80c:60118)
Molčanov, S. A. *See* **Fereig, Nabil'**, (80e:60012)
Peyrière, Jacques Sur les colliers aléatoires de B. Mandelbrot. (English summary) (80c:60119)
Pirdžanov, B. Random walk generated by two renewal processes. (Russian) (80f:60088)
Rangi, Albert Théorème de la limite centrale sur les groupes nilpotents. (80j:60035)
Robledo, Alberto (*with* Budgor, Aaron B.) Random walks, the Ornstein-Zernike equation, and the condensation of a one-dimensional lattice gas. (80a:82040)
Sine, Robert *See* **Jamison, Benton**, (80d:28027)
Srinivasan, R. On some results of Takács in ballot problems. (80i:60012)
Takács, Lajos Fluctuation problems for Bernoulli trials. (80e:60019)
Wijsman, Robert A. *See* **Lai, Tze Leung**, (80j:60066)

60J20 Applications of discrete Markov processes (social mobility, learning theory, industrial processes, etc.)

Bartholomew, D. J. The control of a grade structure in a stochastic environment using promotion control. 80i:60098
Saksena, V. N. Discrete time analysis of a deteriorating structure—a Markovian model. 80m:60079

Secondary classifications:

Albright, S. Christian (*with* Winston, Wayne) A birth-death model of advertising and pricing. (80d:90084)
Fritz, Franz-Josef (*with* Huppert, Bertram; Willems, Wolfgang) ★Stochastische Matrizen. (80g:60066)
Huppert, Bertram *See* **Fritz, Franz-Josef; et al.**, (80g:60066)
Ronault, Alain Lois de Zipf et sources markoviennes. (English summary) (80c:62026a)
Errata de l'article: "Lois de Zipfet sources markoviennes" (Ann. Inst. H. Poincaré Sect. B (N.S.) 14 (1978), no. 2, 169–188). (80c:62026b)
Willems, Wolfgang *See* **Fritz, Franz-Josef; et al.**, (80g:60066)
Winston, Wayne *See* **Albright, S. Christian**, (80d:90084)

60J25 Markov processes with continuous parameter

Cuculescu, Ion Some constructions of Markov processes. II. 80d:60091
Some constructions of Markov processes. III. 80m:60080
Dynkin, E. B. On duality for Markov processes. 80d:60092
Frydman, Halina (*with* Singer, Burton) Total positivity and the embedding problem for Markov chains. 80k:60090
Glover, Joseph Note on the Ray-Knight compactification. 80d:60093
Gravereaux, Jean Bernard (*with* Jacod, Jean) Sur la construction des classes de processus de Markov invariantes par changement de temps. (English summary) 80k:60091
Harlamov, B. P. (*with* Janimjagi, B. È.) Construction of a homogeneous nondeath Markov process from hitting distributions. (Russian. English summary) 80k:60092
Jacod, Jean *See* **Gravereaux, Jean Bernard**, 80k:60091
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Cohn, Harry On the asymptotic events of a Markov chain. (80k:60079)
Engelbert, H. J. Markov processes in general state spaces. III. (80h:60094a)
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Ežov, I. I. (*with* Koroljuk, V. S.) Limit theorems for a class of conditional Markov processes. (Russian) (80c:60087)
Friedman, Avner (*with* Robin, Maurice) The free boundary for variational inequalities with nonlocal operators. (80j:60065)
Getoor, Ronald K. (*with* Sharpe, Michael J.) Some random time dilations of a Markov process. (80k:60094)
Holley, R. (*with* Stroock, D.) Dual processes and their application to infinite interacting systems. (80m:60104)
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60J27 Markov chains with continuous parameter

Anisimov, V. V. (*with* Sitjuk, V. N.) Enlargement of a nonhomogeneous Markov chain with rare nonstationary transition densities. (Russian. English summary) 80b:60096
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Abakuks, Andris An optimal hunting policy for a stochastic logistic model. (80c:92022)
Heller, Wolf-Dieter (*with* Lindenberg, Henner; Nuske, Manfred; Schriever, Karl-Heinz) ★Stochastische Systeme. (80g:60002)
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60J30 Processes with independent increments

Ahmedova, G. M. Distributions of basic functionals of a generalized Poisson process with a delaying barrier. (Russian. English summary) 80e:60089
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Šurenkov, V. M. Boundary conditions and an ergodic theorem for processes with independent increments. (Russian. English summary) **80f:60068**

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Wichura, Michael J. On the probability of a symmetric stable process crossing a bottom outer boundary. **80b:60098**

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Agasandjan, G. A. Adaptive systems for homogeneous processes with continuous state space and controls. (Russian. English summary) **(80b:93037)**

Durrett, Richard (*with* Resnick, Sidney I.) Functional limit theorems for dependent variables. **(80b:60048)**

Friedman, Avner Optimal stopping for random evolution of multi-dimensional Poisson processes with partial observations. **(80c:60061)**

Getoor, Ronald K. The Brownian escape process. **(80b:60102)**

Hawkes, John Measures of Hausdorff type and stable processes. **(80g:60037)**

Kalinauskaitė, Nijolė On sample functions of multiparameter stochastic processes with independent increments. **(80f:60039)**

The local growth of trajectories of random fields with independent increments. I. (Russian. Lithuanian and English summaries) **(80g:60054)**

Khalil, Siamak Independently scattered measures. **(80j:60082)**

Kárezlioğlu, Hayri Two-parameter Gaussian Markov processes and their recursive linear filtering. **(80b:60054)**

Newman, Charles M. (*with* Stuck, B. W.) Optimal sampling of independent increment processes. **(80m:62080)**

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Salter, Richard Small-time limit theorems for stationary independent increment processes. **(80m:60039)**

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60J35 Transition functions, generators and resolvents [See also 47D05, 47D07.]

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Gzyl, Henryk On generators of subordinate semigroups. **80a:60097**

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Yadin, M. (*with* Syski, R.) Randomization of intensities in a Markov chain. **80f:60069**

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Dalec'kiĭ, Ju. L. *See* **Bilopol'ska, Ja. Ĭ., (80i:35096)**

Hirsch, Francis (*with* Taylor, John C.) Renouvellement et existence de résolvantes. **(80i:60104)**

Illner, Reinhard (*with* Kuščer, Ivan) Collision operators as generators of Markov processes and their spectra. **(80b:82005)**

Kertz, Robert P. Limit theorems for semigroups with perturbed generators, with applications to multiscaled random evolutions. **(80a:47066)**

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Langer, Heinz (*with* Schenk, W.) A class of infinitesimal generators of one-dimensional Markov processes. II. Invariant measures. **(80k:47044)**

Lin, T. F. Functional integrals related to a noncontraction semigroup. **(80i:28030)**

Olsen, William H. A Markov chain model for the kinetics of reactant isolation. **(80a:80010)**

Roth, Jean-Pierre Les opérateurs elliptiques comme générateurs infinitésimaux de semi-groupes de Feller. **(80g:47052)**

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Taylor, John C. *See* **Hirsch, Francis, (80i:60104)**

60J40 Hunt processes

Chung, Kai Lai Correction to: "Pedagogic notes on the barrier theorem" (Séminaire de Probabilités, XI (Univ. Strasbourg, Strasbourg, 1975/1976), pp. 27–33, Lecture Notes in Math., Vol. 581, Springer, Berlin, 1977). **80e:60091**

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(*with* Sharpe, Michael J.) Some random time dilations of a Markov process. **80k:60094**

Splitting times and shift functionals. **80k:60093**

(*with* Sharpe, Michael J.) The Markov property at co-optional times. **80m:60083**

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Mitro, Joanna B. Dual Markov processes: construction of a useful auxiliary process. **80g:60075**

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Steica, L. On excessive functions. **80h:60095**

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Chung, Kai Lai (*with* Glover, Joseph) Left continuous moderate Markov processes. **(80i:60103)**

Glover, Joseph *See* **Chung, Kai Lai, (80i:60103)**

60J45 Probabilistic potential theory [See also 31–XX.]

Bendikov, A. D. Harmonic structures that are generated by a thermal Wiener process on a group. (Russian) **80e:60092**

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Biedtner, J. (*with* Hansen, W.) Markov processes and harmonic spaces. **80a:60098**

Bouleau, Nicolas Couplage de deux semi-groupes droites. (English summary) **80b:60099**

Chung, Kai Lai (*with* Glover, Joseph) Left continuous moderate Markov processes. **80i:60103**

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Hawkes, John Potential theory of Lévy processes. **80g:60077**

Hirsch, Francis (*with* Taylor, John C.) Renouvellement et existence de résolvantes. **80i:60104**

Karr, Alan F. (*with* Pittenger, Arthur O.) The inverse balayage problem for Markov chains. II. **80i:60105**

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Mastrangelo-Dehen, Michèle Différentiabilité stochastique des fonctions finement harmoniques. (English summary) **80b:60096**

Mokobodzki, Gabriel Sur l'opérateur de réduite. Remarques sur un travail de J.-M. Bismut: "Sur un problème de Dynkin" [Z. Wahrsch. Verw. Gebiete 39 (1977), no. 1, 31–53; MR 56 #2576]. **80i:60106**

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Berg, Christian Principes duaux en théorie du potentiel. **(80f:31002)**

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Carmona, René Pointwise bounds for Schrödinger eigenstates. **(80d:81010)**

Getoor, Ronald K. Homogeneous potentials. **(80c:60063)**

Raugi, Albert Théorème de la limite centrale sur les groupes nilpotents. **(80j:60035)**

Revuz, Daniel Remarks on the filling scheme for recurrent Markov chains. **(80a:60096)**

Syski, R. Energy of Markov chains. **(80g:60068)**

60J50 Boundary theory

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Silverstein, Martin L. Application of the sector condition to the classification of sub-Markovian semigroups. **80c:60090**

Secondary classifications:

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Kesten, Harry Positive harmonic functions with zero boundary values. **(80m:31006)**

Pittenger, Arthur O. *See* **Karr, Alan F., (80b:60106)**

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Šurenkov, V. M. Boundary conditions and an ergodic theorem for processes with independent increments. (Russian. English summary) **(80f:60068)**

60J55 Local time and additive functionals

Brancovan, Mihai Fonctionnelles additives spéciales des processus récurrents au sens de Harris. **80d:60096**

Gzyl, Cristina (*with* Gzyl, Henryk) Occupation time sets of supports of continuous additive functionals. **80g:60078**

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Jacobs, P. A. Excursions of a Markov process induced by continuous additive functionals. **80a:60099**

Kasahara, Yuji (*with* Kotani, Shinichi) On limit processes for a class of additive functionals of recurrent diffusion processes. **80i:60107**

Kotani, Shinichi *See* **Kasahara, Yuji, 80i:60107**

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Getoor, Ronald K. (*with* Sharpe, Michael J.) Some random time dilations of a Markov process. **(80k:60094)**

Gzyl, Henryk On generators of subordinate semigroups. **(80a:60097)**

Mitro, Joanna B. Dual Markov functionals: applications of a useful auxiliary process. **(80g:60076)**

Nguyen, Hung Trung (*with* Pham Dinh Tuan) Sur l'utilisation du temps local en statistique des processus. (English summary) **(80m:62081)**

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Wolpert, Robert L. Wiener path intersections and local time. **(80a:60104)**

60J57 Multiplicative functionals

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60J60 Diffusion processes [See also 58G32.]

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Harrison, J. Michael The diffusion approximation for tandem queues in heavy traffic. **80a:60101**
Ichihara, Kanji Some global properties of symmetric diffusion processes. **80d:60099**
Krylov, N. V. (*with* Safonov, M. V.) An estimate for the probability of a diffusion process hitting a set of positive measure. (Russian) **80b:60101**
Some new results in the theory of controlled diffusion processes. (Russian) **80j:60104**
Kunita, Hiroshi Supports of diffusion processes and controllability problems. **80f:60108**
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Michel, Dominique Produit de deux diffusions. (English summary) **80g:60080**
Nikanen, M. Selfadjoint diffusion processes with rapidly oscillating coefficients. (Russian. English summary) **80g:60081**
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Pinsky, Mark A. Large deviations for diffusion processes. **80h:60101**
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Sarafjan, R. G. *See* **Sarafjan, V. V.; et al., 80g:60083**
Sarafjan, V. V. (*with* Sarafjan, R. G.; Freidlin, M. I.) Degenerate diffusion processes and differential equations with a small parameter. (Russian) **80g:60083**
Sato, Ken-iti Diffusion operators in population genetics and convergence of Markov chains. **80d:60101**
Schütze, Dieter Zur Grenzverteilung gewisser Funktionale eindimensionaler Diffusionsprozesse. **80k:60097**
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Tudor, Constantin A theorem concerning the existence of the solution of the martingale problem. **80i:60109**

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Banon, G. Nonparametric identification for diffusion processes. **(80e:62058a)**
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Barndorff-Nielsen, Ole Hyperbolic distributions and distributions on hyperbolae. **(80a:60016)**
Bismut, Jean-Michel Control of jump processes and applications. (French summary) **(80a:60063)**
Contrôle de processus alternants et applications. (English summary) **(80g:60045)**
Četaev, A. N. On walks over a partially ordered set (some inequalities for conditional probabilities). **(80a:60128)**
Davis, M. H. A. Functionals of diffusion processes as stochastic integrals. **(80j:60088)**
Dawson, Donald A. (*with* Hochberg, Kenneth J.) The carrying dimension of a stochastic measure diffusion. **(80i:60115)**
Dohrn, Daniela (*with* Guerra, Francesco; Ruggiero, Patrizia) Spinning particles and relativistic particles in the framework of Nelson's stochastic mechanics. **(80m:81028)**
Donsker, M. D. (*with* Varadhan, S. R. S.) On the principal eigenvalue of elliptic second order differential operators. **(80i:35140)**
Ducourtioux, Jean-Louis Temps de vie des solutions de l'équation de la chaleur de Eells-Sampson. (English summary) **(80f:58048)**
Ethier, S. N. Limit theorems for absorption times of genetic models. **(80h:60045)**
Funaki, Tadahisa Probabilistic construction of the solution of some higher order parabolic differential equation. **(80h:60075)**
Gihman, Ĭ. Ĭ. (*with* Skorohod, A. V.) ★Controlled stochastic processes. **(80h:60081)**
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Guerra, Francesco *See* **Dohrn, Daniela; et al., (80m:81028)**
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Hongler, M.-O. Exact time dependent probability density for a nonlinear non-Markovian stochastic process. **(80k:82012)**
Ikeda, Nobuyuki (*with* Manabe, Shojiro) Stochastic integral of differential forms and its applications. **(80d:60075)**
Kesten, Harry (*with* Papanicolaou, George C.) A limit theorem for turbulent diffusion. **(80b:60035b)**
(*with* Papanicolaou, George C.) A limit theorem for turbulent diffusion. **(80b:60035a)**
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Krylov, N. V. ★Управляемые процессы диффузионного типа. (Russian) [Controlled processes of diffusion type] **(80f:60046)**
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Tanaka, Hiroshi Stochastic differential equations with reflecting boundary condition in convex regions. **(80k:60075)**
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60J65 Brownian motion [See also 58G32.]

Abdurasulov, H. Brownian motion processes. (Russian) **80c:60092**
Adler, Robert J. The uniform dimension of the level sets of a Brownian sheet. **80a:60102**
Cabaña, Enrique M. (*with* Wschebor, Mario) Sur le processus de Wiener à deux paramètres. (English summary) **80f:60110**
The Kolmogorov equation for a plane barrier problem. **80m:60084**
Csáki, E. (*with* Révész, Pál) How big must be the increments of a Wiener process? **80d:60102**
Csörgő, Miklós Brownian motion—Wiener process. **80k:60099**
Davis, Burgess Applications of the conformal invariance of Brownian motion. **80j:60105**
Feinsilver, Philip J. ★Special functions, probability semigroups, and Hamiltonian flows. **80c:60093a**
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Foster, Dorothy (*with* Williams, David) The Hawkins sieve and Brownian motion. **80b:60103**
Getoor, Ronald K. The Brownian escape process. **80h:60102**
(*with* Sharpe, Michael J.) Excursions of Brownian motion and Bessel processes. **80b:60104**
Hochberg, Kenneth J. A signed measure on path space related to Wiener measure. **80i:60111**
Jorgensen, E. Construction of the Brownian motion and the Ornstein-Uhlenbeck process in a Riemannian manifold on basis of the Gangolli-McKean injection scheme. **80c:60094**
Kaigh, W. D. An elementary derivation of the distribution of the maxima of Brownian meander and Brownian excursion. **80b:60105**
Karr, Alan F. (*with* Pittenger, Arthur O.) An inverse balayage problem for Brownian motion. **80b:60106**
Kaufman, Robert P. On the sum of two Brownian paths. **80k:60100**
Malliavin, Paul Régularité de lois conditionnelles et calcul des variations stochastiques. (English summary) **80i:60112**
Mastrangelo-Dehen, Michèle Propriété de Lindeberg sur les ouverts fins. (English summary) **80k:60101**
Nguyen Van Thu Banach space valued Brownian motions. **80f:60071**
Park, C. (*with* Skoug, D. L.) Distribution estimates of barrier-crossing probabilities of the Yeh-Wiener process. **80e:60093**
Pittenger, Arthur O. *See* **Karr, Alan F., 80b:60106**
Révész, Pál *See* **Csáki, E., 80d:60102**
Satubaldyev, D. Transition phenomena for stopping times of a Brownian motion. (Russian. Uzbek summary) **80a:60103**
Sharpe, Michael J. *See* **Getoor, Ronald K., 80b:60104**
Shepp, L. A. The joint density of the maximum and its location for a Wiener process with drift. **80g:60084**
Skoug, D. L. *See* **Park, C., 80e:60093**
Vervaat, Wim A relation between Brownian bridge and Brownian excursion. **80b:60107**
Wendel, J. G. Hitting spheres with Brownian motion. **80m:60085**
Williams, David *See* **Foster, Dorothy, 80b:60103**
Wolpert, Robert L. Wiener path intersections and local time. **80a:60104**
Wschebor, Mario *See* **Cabaña, Enrique M., 80f:60110**
Yeh, J. Transformation of conditional Wiener integrals under translation and the Cameron-Martin translation theorem. **80e:60094**

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Belyĭ, V. V. (*with* Klimontovič, Ju. L.) On the kinetic theory of Brownian motion. **(80k:82005)**
Berthuet, Roland Loi du logarithme itéré pour certaines intégrales stochastiques. (English summary) **(80k:60035)**
Brossard, Jean Comportement "non-tangentiel" et comportement "brownien" des

fonctions harmoniques dans un demi-espace. Démonstration probabiliste d'un théorème de Calderon et Stein. (80j:31010)

Comportement des fonctions biharmoniques au voisinage des points de la frontière distinguée où l'intégrale d'aire est finie. (English summary) (80a:31007)

Chaturvedi, S. (*with* Shibata, F.) Time-convolutionless projection operator formalism for elimination of fast variables. Applications to Brownian motion. (80k:82006)

Csörgő, Miklós (*with* Révész, Pál) How small are the increments of a Wiener process? (80a:60031)

(*with* Révész, Pál) How big are the increments of a Wiener process? (80g:60025)

Davis, Burgess Brownian motion and analytic functions. (80j:30001)

Davydov, Ju. A. Local times for stochastic processes with multidimensional parameters. (Russian. English summary) (80a:60045)

(*with* Rozin, A. L.) Sojourn times for functions and stochastic processes. (Russian. English summary) (80a:60046)

Doss, Halim Sur une résolution stochastique de l'équation de Schrödinger à coefficients analytiques. (English summary) (80k:81017)

Duncan, T. E. The heat equation, the Kac formula and some index formulas. (80g:58047)

Fährmann, Hans-Heiner The optimal stopping of a Wiener process with incomplete data. (Russian. English summary) (80c:60060)

Fernandez, Pedro J. Some generalities on probabilistic models, stochastic processes and Brownian motion. (Portuguese) (80e:60001)

Ferrario, Mauro (*with* Grigolini, Paolo) The non-Markovian relaxation process as a "contraction" of a multidimensional one of Markovian type. (80k:82042)

Goodman, Victor Transition probabilities for vector-valued Brownian motion with boundaries. (80d:60043)

Grigolini, Paolo *See* **Ferrario, Mauro,** (80k:82042)

Klimontovič, Ju. L. *See* **Belyĭ, V. V.,** (80k:82005)

Mazo, Robert M. Aspects of the theory of Brownian motion. (80g:82014)

Nguyen Van Thu (*with* Weron, Aleksander) Examples of non-stationary Banach space valued stochastic processes of second order. (80d:60042)

Prat, Jean-Jacques Représentation de certaines fonctions harmoniques bornées sur une surface à courbure négative. (English summary) (80k:60096)

Révész, Pál *See* **Csörgő, Miklós,** (80a:60031) *and* **Csörgő, Miklós,** (80g:60025)

Risken, H. (*with* Vollmer, H. D.) Brownian motion in periodic potentials in the low-friction limit; nonlinear response to an external force. (80m:82007)

Rozin, A. L. *See* **Davydov, Ju. A.,** (80a:60046)

Shibata, F. *See* **Chaturvedi, S.,** (80k:82006)

Vollmer, H. D. *See* **Risken, H.,** (80m:82007)

Weron, Aleksander *See* **Nguyen Van Thu,** (80d:60042)

60J70 Applications of diffusion theory (population genetics, absorption problems, etc.)

Lakatos-Lindenberg, Katja (*with* Seshadri, Venkita) Analytic theory of extrema. I. Asymptotic theory for Fokker-Planck processes. 80i:60113

McDunnough, Phillip Estimating the law of randomly moving particles by counting. 80f:60072

Seshadri, Venkita *See* **Lakatos-Lindenberg, Katja,** 80i:60113

Secondary classifications:

Bensoussan, Alain (*with* Lions, Jacques-Louis; Papanicolaou, George C.) Boundary layers and homogenization of transport processes. (80i:60122)

Berman, Simeon M. (*with* Stewart, Alan L.) The mathematical theory of lateral impedance of visual activity and an application of Markov processes. (80b:92051)

Combis, Patrick Une évolution quasi déterministe associée au mouvement brownien. (English summary) (80c:82002)

Davidson, Mark A generalization of the Fényes-Nelson stochastic model of quantum mechanics. (80j:81023)

van Kampen, N. G. Stochastic phenomena. (80c:82006)

Kogan, Ja. A. (*with* Litvin, V. G.) Piecewise diffusion approximations for queuing problems with heterogeneous arrivals and service. (Russian summary) (80m:60096)

Levikson, Benny (*with* Schuss, Zeev) Nonhomogeneous diffusion approximation to a genetic model. (80i:92008)

Lions, Jacques-Louis *See* **Bensoussan, Alain; et al.,** (80i:60122)

Litvin, V. G. *See* **Kogan, Ja. A.,** (80m:60096)

Matkowsky, Bernard J. *See* **Schuss, Zeev,** (80c:82011)

Papanicolaou, George C. *See* **Bensoussan, Alain; et al.,** (80i:60122)

Polansky, Paul Invariant distributions for multipopulation models in random environments. (80j:92011)

Saito, Ken-iti Diffusion operators in population genetics and convergence of Markov chains. (80d:60101)

Schuss, Zeev (*with* Matkowsky, Bernard J.) The exit problem: a new approach to diffusion across potential barriers. (80c:82011)

See also **Levikson, Benny,** (80i:92008)

Stewart, Alan L. *See* **Berman, Simeon M.,** (80b:92051)

60J75 Jump processes

Vasudevan, R. (*with* Vittal, P. R.; Vijayakumar, A.) On a first passage time problem. 80b:60108

Vijayakumar, A. *See* **Vasudevan, R.; et al.,** 80b:60108

Vittal, P. R. *See* **Vasudevan, R.; et al.,** 80b:60108

Secondary classifications:

Fleming, Thomas R. Asymptotic distribution results in competing risks estimation. (80f:62024b)

Kadyrova, I. I. Stochastic equations for jump-like processes. (Russian. English summary) (80m:60070)

60J80 Branching processes (Galton-Watson, birth-and-death, etc.)

Asmussen, Søren Some martingale methods in the limit theory of supercritical branching processes. 80d:60103

Athreya, K. B. (*with* Ramamurthy, K.) Convergence of state distribution in supercritical multitype Crump-Mode-Jagers branching processes. 80g:60085

(*with* Kaplan, N.) Additive property and its applications in branching processes. 80d:60104

Badalbaev, I. S. (*with* Rahimov, I.) Bellman-Harris branching processes with nonhomogeneous immigration. (Russian) 80f:60073

Barbour, Andrew D. (*with* Pakes, Anthony G.) Limit theorems for the simple branching process allowing immigration. II. The case of infinite offspring mean. 80d:60114b

(*with* Schuh, H.-J.) Functional normalization for the branching process with infinite mean. 80i:60114

Berndtsson, Bo (*with* Jagers, Peter) Exponential growth of a branching process usually implies stable age distribution. 80j:60106

Biggins, J. D. (*with* Grey, D. R.) Continuity of limit random variables in the branching random walk. 80j:60107

Growth rates in the branching random walk. 80e:60095

Boiko, R. V. A limit theorem for branching processes with immigration in a varying environment (the critical case). (Russian) 80g:60086

Limit theorems for branching processes with immigration and varying environment in the subcritical case. (Russian) 80g:60087

Bramson, Maury D. Minimal displacement of branching random walk. 80d:60105

Cocozza, Christiane (*with* Roussignol, Michel) Unicité d'un processus de naissance et mort sur la droite réelle. (English summary) 80b:60109

Dawson, Donald A. (*with* Ivanoff, G.) Branching diffusions and random measures. 80d:60106

(*with* Hochberg, Kenneth J.) The carrying dimension of a stochastic measure diffusion. 80i:60115

Dubuc, Serge Martin boundaries of Galton-Watson processes. 80j:60108

Durham, Stephen *See* **Esty, Warren,** 80c:60095

Durrett, Richard The genealogy of critical branching processes. 80d:60107

An infinite particle system with additive interactions. 80i:60116

Edler, Lutz The extinction of generations in generation-dependent Bellman-Harris branching processes with exponential lifespan. 80e:60096

Strict supercritical generation-dependent Crump-Mode-Jagers branching processes. 80g:60088

On the first birth and the last death in a generation in a multitype Markov branching process. 80m:60086

Esty, Warren (*with* Durham, Stephen) On the survival of branching processes in random environments. 80c:60095

Fleischmann, Klaus (*with* Siegmund-Schultze, Rainer) An invariance principle for reduced family trees of critical spatially homogeneous branching processes. 80j:60109

Foster, James H. (*with* Ney, Peter E.) Limit laws for decomposable critical branching processes. 80c:60096

See also **Grey, D. R.,** 80j:60110

(Goettge, Robert T.) *See* **Grey, D. R.,** 80j:60110

Goldstein, Martin I. (*with* Hoppe, Fred M.) Critical multitype branching processes with infinite variance. 80b:60110

Gorostiza, L. G. (*with* Moncayo, A. R.) Almost-sure invariance principle for branching Brownian motion. 80c:60097

Grey, D. R. Corrections to: "The rates of growth of the Galton-Watson process in varying environment" [J. Appl. Probab. 13 (1976), no. 1, 144–147; MR 52 #15709] by J. H. Foster and R. T. Goettge. 80j:60110

See also **Biggins, J. D.,** 80j:60107

Hering, Heinrich Multigroup branching diffusions. 80d:60108

The non-degenerate limit for supercritical branching diffusions. 80a:60105

Heyde, C. C. (*with* Schuh, H.-J.) Uniform bounding of probability generating functions and the evolution of reproduction rates in birds. 80a:60106

Hochberg, Kenneth J. *See* **Dawson, Donald A.,** 80i:60115

Hoppe, Fred M. (*with* Seneta, E.) Analytical methods for discrete branching processes. 80d:60109

See **Goldstein, Martin I.,** 80b:60110

Huang, T'i Yüan (*with* Wang, Nae Sheng) On best fractional linear generating function bounds. 80d:60110

Ivanoff, G. *See* **Dawson, Donald A.,** 80d:60106

Jagers, Peter *See* **Berndtsson, Bo,** 80j:60106

Joffe, Anatole Remarks on the structure of trees with applications to supercritical Galton-Watson processes. 80d:60111

Kallenberg, P. J. M. ★Branching processes with continuous state space. 80k:60102

Kaplan, N. *See* **Athreya, K. B.,** 80d:60104

Kapur, J. N. Application of generalized hypergeometric functions to generalized birth and death processes. 80i:60117

(*with* Kapur, S.) Steady-state birth-death-immigration-emigration processes. 80d:60112

(*with* Kumar, Uma) Generalised birth and death processes with multiple births. 80f:60074

Moments for some general birth and death processes. 80a:60103

Kapur, S. *See* **Kapur, J. N.,** 80d:60112

Kolčin, V. F. The extinction time of a branching process and the height of a random tree. (Russian) 80i:60118

Krätzel, Ekkehard Zweidimensionale Todesprozesse in stetiger Zeit. 80d:60113

Kuliński, Jacek Some remarks on a population with a doubling energy. 80c:60098a

Some remarks on an asymptotical behaviour of the mean number of particles for a population with a doubling energy. 80c:60098b

Kulperger, R. Brillinger type mixing conditions for a simple branching diffusion process. 80i:60119

Kumar, Uma *See* **Kapur, J. N.,** 80f:60074

Kurtz, Thomas G. Diffusion approximations for branching processes. 80g:60089

Lebedev, E. O. Refinement of a limit theorem for branching processes. (Russian. English summary) **80b:60104**
Limit theorems for critical branching processes in random environment. (Russian. English summary) **80c:60099**
Levy, Joshua B. Transience and recurrence of state-dependent branching processes with an immigration component. **80b:60111a**
Correction: "Transience and recurrence of state-dependent branching processes with an immigration component" (Adv. Appl. Probab. 11 (1979), 73–92). **80b:60111b**
McDunnough, Philip Some aspects of the Smoluchowski process. **80f:60075**
Moucayo, A. R. *See* **Gorostiza, L. G., 80c:60097**
Morgan, Byron J. T. Four approaches to solving the linear birth-and-death (and similar) processes. **80j:60111**
Ney, Peter E. *See* **Foster, James H., 80c:60096**
Pakes, Anthony G. Limit theorems for the simple branching process allowing immigration. I. The case of finite offspring mean. **80d:60114a**
See also **Barbour, Andrew D., 80d:60114b**
Pastore, G. L. Some theorems on Markov branching processes. (Russian. English summary) **80b:60112**
Peyrière, Jacques Processus de naissance avec interactions des voisins. (English summary) **80f:60120**
Quigg, David L. On an integral equation arising in age-dependent branching processes. **80a:60107**
Rahimov, I. Critical Galton-Watson processes with increasing immigration. (Russian. Uzbek summary) **80b:60113**
See also **Badalbaev, I. S., 80f:60073**
Ramamurthy, K. *See* **Athreya, K. B., 80g:60085**
Roussignol, Michel *See* **Cocozza, Christiane, 80b:60109**
Schuh, H.-J. *See* **Heyde, C. C., 80a:60106** *and* **Barbour, Andrew D., 80f:60114**
Seneta, E. *See* **Hoppe, F. M., 80d:60109**
Siegmund-Schultze, Rainer *See* **Fleischmann, Klaus, 80j:60109**
Torrez, William C. The birth and death chain in a random environment: instability and extinction theorems. **80b:60114**
Calculating extinction probabilities for the birth and death chain in a random environment. **80f:60121**
Vatutin, V. A. A limit theorem for a critical multitype Bellman-Harris branching process with infinite second moments. (Russian. English summary) **80b:60115**
Discrete limit distributions of the number of particles in a multitype Bellman-Harris branching process. (Russian. English summary) **80j:60112**
V'jugin, O. V. Transition phenomena in branching processes with a final type. (Russian. English summary) **80a:60108**
Wang, Nae Sheng *See* **Huang, Ti Yüan, 80d:60110**
Warmuth, Walter Kritische räumlich homogene Verzweigungsprozesse mit abzählbarer Typenmenge. **80e:60097**
Weiner, Howard J. The extinction probability in a critical branching process. **80b:60105**
Joint distributions for total progeny in a critical branching process. **80b:60116**
Limit probabilities for critical age-dependent branching processes with immigration. **80c:60100**

Secondary classifications:

Athreya, K. B. (*with* Ney, Peter E.) A Markov process approach to systems of renewal equations with application to branching processes. **80f:60077**
Beyer, W. A. (*with* Waterman, Michael S.) Moments of absorption time for a conditioned random walk. **80c:60085**
Bühler, Wolfgang J. (*with* Keller, Günter) Some remarks on Bartoszyński's rabies model. **80a:92010**
Čistjakov, V. P. On the estimation of the Perron root of nonnegative matrices. (Russian) **80f:15024**
Cocozza, Christiane (*with* Roussignol, Michel) Unicité d'un processus de naissance et mort sur la droite réelle. (English summary) **80i:60131**
Dion, Jean-Pierre (*with* Keiding, Niels) Statistical inference in branching processes. **80d:62072**
(*with* Esty, Warren) Estimation problems in branching processes with random environments. **80d:62071**
Durrett, Richard Maxima of branching random walks vs. independent random walks. **80m:60031**
Esty, Warren *See* **Dion, Jean-Pierre, 80d:62071**
Fleischmann, Klaus Subkritische räumlich homogene Verzweigungsprozesse. II. **80b:60073**
(Joffe, Anatole) *See* **Branching processes, 80c:60004**
Keiding, Niels *See* **Dion, Jean-Pierre, 80d:62072**
Keller, Günter *See* **Bühler, Wolfgang J., 80a:92010**
Mannion, David Random packing of an interval. II. **80i:60014**
Nanthi, K. Estimation of the criticality parameter of a supercritical branching process with random environments. **80j:62083**
Ney, Peter E. *See* **Athreya, K. B., 80f:60077** *and* **Branching processes, 80c:60004**
Roussignol, Michel *See* **Cocozza, Christiane, 80i:60131**
Sánchez-Dehesa, Jesus Zeros of orthogonal polynomials related to birth-death processes. **80c:42009**
(Sugiura, Nariaki) *See* **Special issue: Theory and practice for categorical data analysis, 80d:62042**
Waterman, Michael S. *See* **Beyer, W. A., 80c:60085**
Weiner, Howard J. Joint distributions for total progeny in a critical branching process. **80b:60116**
Branching processes ★Branching processes. **80c:60004**
Categorical data analysis *See* **Special issue: Theory and practice for categorical data analysis, 80d:62042**
Conference:
Branching Processes *See* **Branching processes, 80c:60004**
Saint Hippolyte, Que. *See* **Branching processes, 80c:60004**
Special issue:
Theory and practice for categorical data analysis ★Special issue on theory and practice for categorical data analysis. **80d:62042**
Theory and practice for categorical data analysis *See* **Special issue: Theory and practice for categorical data analysis, 80d:62042**

60J85 Applications of branching processes [See also 60K30, 92A10, 92A15.]

Mollison, Denis Markovian contact processes. **80c:60101**

Secondary classifications:

Braun, Henry Stochastic stable population theory in continuous time. **80g:92015**
Heyde, C. C. (*with* Schuh, H.-J.) Uniform bounding of probability generating functions and the evolution of reproduction rates in birds. **80a:60106**
Schuh, H.-J. *See* **Heyde, C. C., 80a:60106**

60J99 None of the above, but in this section

Bensoussan, Alain (*with* Lions, Jacques-Louis; Papanicolaou, George C.) Boundary layers and homogenization of transport processes. **80f:60122**
Harrison, J. Michael (*with* Resnick, Sidney I.) The recurrence classification of risk and storage processes. **80a:60109**
Kljačkin, V. I. Markov processes, functional correlations and stochastic equations. (Russian. English summary) **80b:60106**
Lions, Jacques-Louis *See* **Bensoussan, Alain; et al., 80f:60122**
Papanicolaou, George C. *See* **Bensoussan, Alain; et al., 80f:60122**
Resnick, Sidney I. *See* **Harrison, J. Michael, 80a:60109**
Sanghvi, Arun P. Convergence of successive approximations to a stochastic fixed point. **80m:60087**
Šavgulidze, E. T. The direct equation of Kolmogorov for measures in a Hilbert scale of spaces. (Russian. English summary) **80j:60113**

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Alberverio, Sergio (*with* Hoegh-Krohn, Raphael) Topics in infinite dimensional analysis. **(80g:58018)**
(*with* Hoegh-Krohn, Raphael) Uniqueness and the global Markov property for Euclidean fields. The case of trigonometric interactions. **(80f:82003)**
Artem'ev, V. M. ★Теория динамических систем со случайными изменениями структуры. (Russian) [Theory of dynamical systems with random changes in structure] **(80j:93109)**
Bensoussan, Alain (*with* Lions, Jacques-Louis; Papanicolaou, George C.) Asymptotics for branching transport processes. **(80g:82045)**
Dekker, H. On the functional integral representation of general continuous Markov processes. **(80a:76035)**
Guyon, Xavier (*with* Prum, Bernard) Propriétés de Markov au sens de Hida et représentations de Goursat pour des processus à indice dans $\mathbf{R}$ ou $\mathbf{R}^2$. (English summary) **(80b:60078)**
Hoegh-Krohn, Raphael *See* **Alberverio, Sergio, (80g:58018)** *and* **Alberverio, Sergio, (80f:82003)**
Iványi, Antal (*with* Kátai, Imre) Processing of random sequences with priority. **(80d:68029)**
Kátai, Imre *See* **Iványi, Antal, (80d:68029)**
Lavenda, B. H. On the validity of the Onsager-Machlup postulate for nonlinear stochastic processes. **(80b:82034)**
Lions, Jacques-Louis *See* **Bensoussan, Alain; et al., (80g:82045)**
Matsuzawa, T. Construction of fundamental solutions of hypoelliptic equations by the use of a probabilistic method. **(80d:35038)**
Papanicolaou, George C. Boundary behavior of branching transport processes. **(80d:82070)**
See also **Bensoussan, Alain; et al., (80g:82045)**
Prum, Bernard *See* **Guyon, Xavier, (80b:60078)**
Shiflett, Ray C. Continuous stochastic measures and Markov operators. **(80m:60007)**

60Kxx Special processes

60K05 Renewal theory

Andersen, Per Kragh Filtered renewal processes with a two-sided impact function. **80j:60114**
Athreya, K. B. (*with* McDonald, David R.; Ney, Peter E.) Coupling and the renewal theorem. **80j:60115**
Chow, Yuan Shih (*with* Hsiung, Chao A.; Lai, Tze Leung) Extended renewal theory and moment convergence in Anscombe's theorem. **80d:60115**
Csenki, Attila An invariance principle in k-dimensional extended renewal theory. **80i:60123**
Franken, Peter (*with* Streller, Arnfried) Stationary generalized regenerative processes. (Russian. English summary) **80e:60098**
Hsiung, Chao A. *See* **Chow, Yuan Shih; et al., 80d:60115**
Iglehart, Donald L. Simulating stable stochastic systems. VII. Selecting the best system. **80g:60090**
Kartalov, M. V. Power estimates for the rate of convergence in the renewal theorem. (Russian. English summary) **80i:60124**
Lai, Tze Leung *See* **Chow, Yuan Shih; et al., 80d:60115**
Lindvall, Torgny On coupling of discrete renewal processes. **80g:60091**
Lootgieter, J.-C. Sur la répartition des suites de Kakutani. II. (English summary) **80a:60110**
McDonald, David R. *See* **Athreya, K. B.; et al., 80j:60115**

Nagaev, A. V. Renewal theorems in R^d. (Russian. English summary) **80j:60116**
Neffke, H. Bewertete Erneuerungsprozesse mit streng stationären Zuwächsen. **80d:60116**
Ney, Peter E. *See* **Athreya, K. B.; et al., 80j:60115**
Nicolescu, Ştefan P. Extension of a renewal theorem. **80m:60088**
Sgibnev, M. S. Asymptotic analysis of the density of the renewal function. (Russian) **80c:60099**
Shiki, Kiyoshi A renewal theorem in higher dimensions. **80k:60103**
Sil'vestrov, D. S. The renewal theorem in the scheme of series. II. (Russian. English summary) **80g:60092**
Streller, Arnfried *See* **Franken, Peter, 80e:60098**

Secondary classifications:

Athreya, K. B. (*with* Ney, Peter E.) A new approach to the limit theory of recurrent Markov chains. **80l:60092**
Chow, Yuan Shih (*with* Lai, Tze Leung) Paley-type inequalities and convergence rates related to the law of large numbers and extended renewal theory. **80c:60048**
van Harn, Klaas ★Classifying infinitely divisible distributions by functional equations. **80c:60028**
Hirsch, Francis (*with* Taylor, John C.) Renouvellement et existence de résolvantes. **80l:60104**
Kartašov, M. V. Uniform asymptotics for renewal measures on a half-line. (Russian. English summary) **80e:60037**
Lai, Tze Leung (*with* Siegmund, D.) A nonlinear renewal theory with applications to sequential analysis. II. **80c:62100**
See also **Chow, Yuan Shih, 80c:60048**
Miller, Douglas R. (*with* Sentilles, F. Dennis) Weak convergence of probability measures relative to incompatible topology and σ-field with applications to renewal theory. **80b:60008**
Miller, H. D. Infinite divisibility in stochastic processes. **80h:60027**
Ney, Peter E. *See* **Athreya, K. B., 80l:60092**
Rogozin, B. A. (*with* Sgibnev, M. S.) Banach algebras of absolutely continuous measures on the line. (Russian) **80f:43007**
Sentilles, F. Dennis *See* **Miller, Douglas R., 80b:60008**
Sgibnev, M. S. *See* **Rogozin, B. A., 80f:43007**
Siegmund, D. *See* **Lai, Tze Leung, 80c:62100**
Taylor, John C. *See* **Hirsch, Francis, 80l:60104**
Westcott, Mark On the tail behaviour of record-time distributions in a random record process. **80j:60037**

60K10 Applications (reliability, demand theory, etc.)

Dimitrov, B. N. (*with* Karapenev, Hristo K.) Reliability of a system with warm standby and with delay in detecting failures. (Bulgarian. Russian and English summaries) **80m:60089**
Karapenev, Hristo K. *See* **Dimitrov, B. N., 80m:60089**
Kistner, K.-P. (*with* Subramanian, Ramachandran) Regenerative Eigenschaften von Modellen der Zuverlässigkeitstheorie. **80b:60117**
Kumecov, M. Ju. Limit distribution of the time of first occurence of a rare event in the system described by m independent alternating renewal processes. (Russian. English summary) **80h:60107**
Pavlov, I. V. (*with* Smirnov, A. B.) Optimal recording of random flows of events. **80d:60117**
Puri, Prem S. On certain problems involving nonidentifiability of distributions arising in stochastic modeling. **80j:60117**
Ross, Sheldon M. Multivalued state component systems. **80e:60100**
Saunders, I. W. Locating bright spots in a point process. **80a:60111**
Smirnov, A. B. *See* **Pavlov, I. V., 80d:60117**
Subramanian, Ramachandran *See* **Kistner, K.-P., 80b:60117**
Zuckerman, Dror Optimal replacement policy for the case where the damage process is a one-sided Lévy process. **80a:60112**

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Dziubdziela, Wiesław (*with* Kopociński, Bolesław) Estimation of the reliability of systems. (Polish) **80m:90055**
Esary, J. D. (*with* Marshall, Albert W.) Multivariate distributions with increasing hazard rate average. **80g:62030**
Kopociński, Bolesław (*with* Przybysz, Halina) A remark on preventive replacement strategies. (Polish) **80m:90056**
See also **Dziubdziela, Wiesław, 80m:90055**
Litvak, E. I. *See* **Žuk, P. I., 80g:62076**
Marshall, Albert W. *See* **Esary, J. D., 80g:62030**
Nelson, P. R. A prediction interval search scheme for the move-to-the-front replacement algorithm. **80k:68010**
Przybysz, Halina *See* **Kopociński, Bolesław, 80m:90056**
Žuk, P. I. (*with* Litvak, E. I.) Reliability indices of an isolated system with a reduced sliding standby in the case of limited repair. (Russian. English summary) **80g:62076**

60K15 Markov renewal processes, semi-Markov processes

Arora, Vinder Some generalizations in Markov renewal processes. **80d:60118**
Athreya, K. B. (*with* Ney, Peter E.) A Markov process approach to systems of renewal equations with application to branching processes. **80f:60077**
(*with* McDonald, David R.; Ney, Peter E.) Limit theorems for semi-Markov processes and renewal theory for Markov chains. **80f:60076**
(*with* Ney, Peter E.) Limit theorems for semi-Markov processes. **80f:60078**
Borodin, O. P. (*with* Ežov, I. I.; Zaharin, O. M.) Estimation of the efficiency of the functioning of a class of regenerative systems. (Russian. English summary) **80k:60104**
Černekov, A. P. Some ergodic theorems for a semi-Markov process with an arbitrary state space. (Russian. English summary) **80k:60118**
Ežov, I. I. *See* **Borodin, O. P.; et al., 80k:60104**
Fal', A. M. The time of attainment of a range of level n in the simplest Markov random walk. (Russian. English summary) **80g:60093**
Hasanov, M. The absorption time of a semi-Markov process with a class of ergodic states and a sequence of transient states. (Russian) **80d:60119**
Kaplan, E. I. (*with* Sil'vestrov, D. S.) Theorems of invariance principle type for recurrent semi-Markov processes with an arbitrary phase space. (Russian. English summary) **80h:60108**
Kertz, Robert P. Random evolutions with underlying semi-Markov processes. **80m:60090**
Koroljuk, V. S. (*with* Lebedinceva, E. P.) A limit theorem for the sojourn time of a semi-Markov process in a subset of states. (Russian) **80c:60102**
Lebedinceva, E. P. *See* **Koroljuk, V. S., 80c:60102**
McDonald, David R. On semi-Markov and semiregenerative processes. II. **80a:60113b**
On semi-Markov and semi-regenerative processes. I. **80a:60113a**
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Mehlmann, Alexander Semi-Markovian manpower models in continuous time. **80d:60120**
Mukhtdinova, N. M. Standby with preventive maintenance and repair. (Russian) **80c:60101**
Nasirova, T. I. An ergodic theorem for some semi-Markov processes with an absorbing barrier. (Russian. English summary) **80e:60102**
Neuts, Marcel F. The second moments of the absorption times in the Markov renewal branching process. **80g:60094**
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Nummelin, E. Uniform and ratio limit theorems for Markov renewal and semi-regenerative processes on a general state space. (French summary) **80a:60114**
Schassberger, R. Insensitivity of steady-state distributions of generalized semi-Markov processes with speeds. **80b:60119**
Sharma, S. C. Cumulative processes associated with Markov renewal processes in space. **80h:60109**
Sil'vestrov, D. S. *See* **Kaplan, E. I., 80h:60108**
Tadiev, A. An asymptotic expansion for the distribution of the time of absorption of a semi-Markov process. The case of several ergodic subsets. (Russian) **80a:60115**
Voina, O. A. Sojourn time in a fixed subset and consolidation of the states of random processes with an arbitrary phase space. (Russian. English summary) **80c:60103**
Zaharin, O. M. Complex randomized semi-Markov processes. (Russian. English summary) **80i:60125**
An ergodic theorem for single-component randomized semi-Markov processes. (Russian) **80h:60110**
Investigation of a discrete semi-Markov system with independent increments of profits and losses. (Russian. English summary) **80m:60091**
See also **Borodin, O. P.; et al., 80k:60104**
Zaslavskii, A. E. A multidimensional Markov renewal theorem and an infinite system of particles of a countable set of types. (Russian. English summary) **80d:60121**

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Gusak, D. V. The factorization method in boundary problems for a class of processes on a Markov chain. I. (Russian) **80g:60073a**
The factorization method in boundary problems for a class of processes on a Markov chain. II. (Russian) **80g:60073b**
Jankiewicz, Maria Extended piecewise Markov processes in continuous time. (Polish summary) **80f:60064a**
Extended piecewise Markov processes in discrete time. (Polish summary) **80f:60064b**
Janssen, Jacques Some prediction problems in semi-Markov queueing models and related topics. **80a:62158**
Nasirova, T. I. A model of inventory control. (Russian) **80f:90056**
Robinson, Derek Optimization of priority queues—a semi-Markov decision chain approach. **80e:60112**
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Takács, Lajos On fluctuations of sums of random variables. **80g:60069**
Tursunov, G. T. *See* **Sil'vestrov, D. S., 80d:60030**

60K20 Applications of Markov renewal processes (reliability, queueing networks, etc.) [See also 90B22, 90B25.]

Kredencer, B. P. Time distribution until the first failure of a class of complex systems. (Russian. English summary) **80i:60126**
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Nummelin, E. A conservation property for general $GI/G/1$ queues with an application to tandem queues. **80d:60122**
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Haurie, Alain *See* **Alj, Abderrahmane, 80m:93055**
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60K25 Queueing theory [See also 68C15, 90B22.]

Almarov, I. Ergodicity and stability of multichannel queueing systems with a limited waiting time. (Russian) **80m:60092**
The rate of convergence in the ergodicity and continuity theorems for multichannel queueing systems. (Russian. English summary) **80m:60093**

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Antelava, N. I. (*with* Arseniĭvili, G. L.) A multi-channel queueing system with an arrival stream of variable intensity. (Russian. Georgian and English summaries) **80b:60120**

Arjas, Elja (*with* Lehtonen, Tapani) Approximating many server queues by means of single server queues. **80c:60105**

Arndt, Ursula A continuity theorem for stationary distributions in general m-server queues. (German and Russian summaries) **80a:60116**

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Beutler, Frederick J. (*with* Melamed, Benjamin) Decomposition and customer streams of feedback networks of queues in equilibrium. **80b:60121**

Bhat, U. Narayan (*with* Salaby, Mohamed; Fischer, Martin J.) Approximation techniques in the solution of queueing problems. **80f:60127**

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Brill, P. H. An embedded level crossing technique for dams and queues. **80d:60125**

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(Bulenko, N. P.) *See* **Lifšic, A. L.; et al., 80a:60121**

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Cohen, J. W. The multiple phase service network with generalized processor sharing. **80i:60128**

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Danieljan, È. A. (*with* Zemljanoĭ, N. S.) On the asymptotics of the queue length of the $\vec{M}_r|\vec{G}_r|1|\infty$ system in heavy traffic. (Russian. Armenian summary) **80d:60128**
Busy periods in single server systems with interruption of service. (Russian. Armenian summary) **80e:60105**

Debes, Hermann Über den Ausgang eines $GI/GI/1/0$-Bedienungssystems mit vorzeitiger Bedienungsbeendigung. (English and Russian summaries) **80h:60111**

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Dragotă, Iulian An $M/M/1$ queueing model with modification of the arrival stream. (Romanian. French summary) **80h:60112**

Dubovyĭ, I. M. Structurally complicated queueing systems. **80a:60117**

Eisenberg, Martin Two queues with alternating service. **80c:60107**

Fayolle, Guy (*with* Iasnogorodski, Roudolf) Two coupled processors: the reduction to a Riemann-Hilbert problem. **80c:60108**

Fedotkin, M. A. Control of conflicting flows of orders on the basis of minimal information regarding the state of a system with variable servicing structure. I. **80g:60097**

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Fond, Simson (*with* Ross, Sheldon M.) A heterogeneous arrival and service queueing loss model. **80a:60118**

Franken, Peter (*with* Kalähne, Ursula) Existence, uniqueness and continuity of stationary distributions for queueing systems without delay. **80h:60113**

Fujisawa, Takehisa (*with* Ōsone, Tadashi) Inter-arrival time distributions of accepted customers in some queueing systems with finite capacity. **80d:60130**

Gallisch, Eckhardt On monotone optimal policies in a queueing model of $(M/G/1)$ type with controllable service time distribution. **80g:60099**

Gaur, K. N. (*with* Kashyap, B. R. K.) The busy period in a priority queue with limited waiting space. **80f:60081**
(*with* Kashyap, B. R. K.) The double ended queue with mixed-Erlangian arrival distribution and limited waiting space. **80a:60119**
Time-dependent solution of the preemptive-repeat priority queue with bulk arrivals. **80a:60114**

Ghosal, A. A result in queueing theory. **80d:60131**
(*with* Madan, Sudhir) Isomorphs of a class of queueing systems. **80d:60132**

Gittins, J. C. A comparison of service disciplines for $GI/G/m$ queues. (German and Russian summaries) **80c:60109**

Grassmann, W. K. *See* **Cromie, M. V.; et al., 80d:60127**

Gromov, A. I. (*with* Naumov, V. A.) An approximate method of investigation of multiphase systems. (Russian) **80g:60100**

Gruver, William A. *See* **Klein, C. F., 80g:60102**

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Hauser, R. Ein Warteschlangensystem mit zeitabhängigen Parametern. **80e:60106**

Hiramatsu, Toshiaki *See* **Nishida, Toshio, 80m:60097**

Hokstad, Per On the steady-state solution of the $M/G/2$ queue. **80f:60082**

Husainov, Ja. M. On a queueing system. (Russian) **80f:60083**

Husanov, M. Distribution of the maximal queue length in a $GI|M|1$ queueing system with fast service. (Russian) **80c:60110**

Iasnogorodski, Roudolf *See* **Fayolle, Guy, 80c:60108**

Ishikawa, Akihiko *See* **Tumura, Yoshiro, 80a:60124**

Jain, G. C. (*with* Chong, F. S.) Busy period distributions in the steady state single-server queue and their applications. (German and Russian summaries) **80h:60115**

Janssen, Jacques The explicit results for semi-Markov models in risk theory and in queueing theory. **80k:60107**

Kalähne, Ursula *See* **Franken, Peter, 80h:60113**

Kartašov, M. V. Estimating stationary queue size in an $M/GI/n$ system. (Russian. English summary) **80f:60084**

Kashyap, B. R. K. *See* **Gaur, K. N., 80a:60119** *and* **Gaur, K. N., 80f:60081**

Kawashima, Takeshi Turnaround time equations in queueing networks. (Japanese summary) **80e:60107**

Kirstein, Bernd Michael Some monotonicity properties and bounds for $GI/M/m$ systems without delay. (German and Russian summaries) **80a:60120**
Some inequalities for queues with applications to tandem and overflow systems. (German and Russian summaries) **80g:60101**

Klein, C. F. (*with* Gruver, William A.) Dynamic optimization in Markovian queueing systems. **80g:60102**

Klimov, G. P. Time-sharing queueing systems. II. (Russian. English summary) **80i:60129**

Kogan, Ja. A. (*with* Litvin, V. G.) Model of a time-sharing system operating in an alternating mode. **80d:60133**
(*with* Litvin, V. G.) Piecewise diffusion approximations for queuing problems with heterogeneous arrivals and service. (Russian summary) **80m:60096**

Köllerström, Julian Stochastic bounds for the queue $GI/G/1$ in heavy traffic. **80b:60124**
Heavy traffic theory for queues with several servers. II. **80g:60103**

Korniĺčuk, M. T. (*with* Markova, L. N.) A class of queueing systems with discrete time. (Russian. English summary) **80f:60085**
Stationary probabilities of states of an unreliable system with variable repair rate. (Russian. English summary) **80g:60104**

Kotlah, T. C. T. Time-dependent approximations for queues with high traffic intensities. (French summary) **80i:60130**

Kozlov, V. V. A limit theorem for a queueing system. (Russian. English summary) **80f:60086**

Langen, H.-J. Optimierung von $M/G/1$—Wartesystemen mit schaltbarem Bediener. (English summary) **80e:60108**

Lehtonen, Tapani *See* **Arjas, Elja, 80c:60105**

Le Maire, B. Théorème de conservation des clients dans les files d'attente. (English summary) **80e:60109**

Lifšic, A. L. (*with* Mal'c, È. A.) ★Статистическое моделирование систем массового обслуживания. (Russian) [Statistical modeling of queueing systems] **80a:60121**

Litvin, V. G. *See* **Kogan, Ja. A., 80d:60133** *and* **Kogan, Ja. A., 80m:60096**

Madan, Sudhir *See* **Ghosal, A., 80d:60132**

Mal'c, È. A. *See* **Lifšic, A. L., 80a:60121**

Malinkovskiĭ, Ju. V. Difference equations arising in a queueing theory problem. (Russian. English summary) **80c:60111**

Marchal, William G. Some simpler bounds on the mean queuing time. **80e:60110**

Markova, L. N. *See* **Korniĺčuk, M. T., 80f:60085**

Melamed, Benjamin Characterizations of Poisson traffic streams in Jackson queueing networks. **80d:60134**
See also **Beutler, Frederick J., 80b:60121**

Miyazawa, Masakiyo A formal approach to queueing processes in the steady state and their applications. **80d:60135**

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Nawrotzki, Kurt Einige Bemerkungen zur Verwendung der Palmschen Verteilung in der Bedienungstheorie. (English and Russian summaries) **80d:60136**

Nazarov, A. A. (*with* Terpugov, A. F.) The finding of optimal dynamic priorities in the case of oblique observations. **80e:60111**

Nishida, Toshio (*with* Ueshima, Yasumasa; Yoneyama, Kanji) Two-stage tandem queue with two types of customers. **80f:60087**
(*with* Hiramatsu, Toshiaki) Commutative tandem queue with correlated two servers. **80m:60097**

Nozaki, Shirley A. (*with* Ross, Sheldon M.) Approximations in finite-capacity multi-server queues with Poisson arrivals. **80b:60125**

Olĭnyk, I. D. The queueing system $M_r/M_r/1$ and a generalization of it. (Russian) **80c:60112**

Osawa, Hideo The time-dependent streams of overflows and input-flows in the queueing system with variable arrival rate. **80m:60098**

Ōsone, Tadashi *See* **Fujisawa, Takehisa, 80d:60130**

Ott, Teunis J. Some more results for the stable $M/G/1$ queue in heavy traffic. **80d:60137**

Pagurek, B. *See* **Woodside, C. M., 80h:60119**

Parnev, I. V. *See* **Artemkina, L. V., 80d:60123**

Parras Guijosa, Luis (*with* Pascual Acosta, Antonio) A study of new bounds for the distributions and measures of effectiveness of the $GI/M/1$ queue. (Spanish) **80h:60116**

Pascual Acosta, Antonio *See* **Parras Guijosa, Luis, 80h:60116**
Petinkin, A. V. *See* **Belov, E. G., 80d:60124**
Pirdzanov, B. Random walk generated by two renewal processes. (Russian) **80f:60088**
Pujolle, Guy *See* **Charlot, François, 80b:60122**
Purdue, Peter The single server queue in a random environment. **80g:60106**
Robinson, Derek Optimization of priority queues—a semi-Markov decision chain approach. **80e:60112**
Rosenlund, Stig I. Controlling a Markovian queue at equidistant time epochs. **80e:60113**
Ross, Sheldon M. *See* **Fond, Simeon, 80a:60118** *and* **Nozaki, Shirley A., 80b:60125**
Rumjancev, N. V. (*with* Šiškovskiĭ, G. I.) Waiting time distributions in the system $M/G_1{\cdot}G_2(\mathrm{end})/1$ and $M/G_1{\cdot}G_2(\mathrm{in})/1$. (Russian. English summary) **80g:60107**
Saksonov, E. A. *See* **Ždanov, V. S., 80m:60103**
Salaby, Mohamed *See* **Bhat, U. Narayan; et al., 80l:60127**
Salija, R. N. The dependence of the choice of the form of operation of a queueing system on the number of constituent subsystems. (Russian) **80a:60122**
Samaan, Jacob E. (*with* Tracy, Derrick S.) Properties of some estimators for the simple queue $M/M/1$. **80h:60117**
Schäl, Manfred On the $M/G/1$-queue with controlled service rate. **80a:60123**
Schassberger, R. The insensitivity of stationary probabilities in networks of queues. **80g:60108a**
Correction: "The insensitivity of stationary probabilities in networks of queues" [Adv. in Appl. Probab. **10** (1978), no. 4, 906–912; MR 80g:60108]. **80g:60108b**
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Schmidt, V. On some relations between stationary time and customer state probabilities for queueing systems $G/GI/s/r$. (German and Russian summaries) **80c:60113**
Shanthikumar, J. G. On a single-server queue with state-dependent service. **80k:60108**
Sharma, B. B. Application of finite discrete transform on $M/M/s$ queueing system. **80m:60099**
Šiškovskiĭ, G. I. *See* **Rumjancev, N. V., 80g:60107**
Sokolov, I. A. Joint distribution of the waiting time on the part of orders of different priorities. **80b:60126**
Sonderman, David Comparing multi-server queues with finite waiting rooms. I: Same number of servers. **80f:60090a**
Comparing multi-server queues with finite waiting rooms. II: Different numbers of servers. **80f:60090b**
Soon, Chin Loong Waiting-time in general batch size arrivals queues. **80b:60127**
Stanford, Robert E. Reneging phenomena in single channel queues. **80m:60100**
Stidham, Shaler, Jr. Socially and individually optimal control of arrivals to a $GI/M/1$ queue. **80c:60114**
Stoyan, Dietrich A further bound for the mean stationary waiting time in $M/GI/s$ queues. (German and Russian summaries) **80m:60101**
Szczotka, W. Factorization of the distribution function of waiting time. (Polish summary) **80f:60091**
Temirov, Č. Limit theorems for a queueing system with a nonhomogeneous stream of customer arrivals. (Russian) **80f:60092**
Terpugov, A. F. *See* **Nazarov, A. A., 80e:60111**
Tracy, Derrick S. *See* **Samaan, Jacob E., 80h:60117**
Tsuura, Yoshiro (*with* Ishikawa, Akihiko) Numerical calculation of the tandem queueing system. **80a:60124**
Tursunov, G. T. On the number of served customers in an $M|\vec{G}|1$ system with Markovian control of service. (Russian) **80c:60115**
Ueshima, Yasumasa *See* **Nishida, Toshio; et al., 80f:60087**
Weber, Richard R. The interchangeability of $\cdot/M/1$ queues in series. **80h:60118**
Winston, Wayne Optimal assignment of customers in a two server congestion system with no waiting room. **80e:60114**
Optimality of monotonic policies for multiple-server exponential queuing systems with state-dependent arrival rates. **80e:60115**
Woodside, C. M. (*with* Pagurek, B.) An algorithm for computing serial correlations of times in $GI/G/1$ queues with rational arrival processes. **80h:60119**
Yoneyama, Kanji *See* **Nishida, Toshio; et al., 80f:60087**
Zavkh, V. A. A priority queueing system with a mixed load. (Russian) **80m:60102**
Ždanov, V. S. (*with* Saksonov, E. A.) Conditions of existence of steady-state modes in cyclic queueing systems. **80m:60103**
Zeifman, A. I. Stability of the Erlang model. (Russian) **80b:60128**
Zemljanoĭ, N. S. *See* **Danieljan, È. A., 80d:60128**
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Ackroyd, Martin H. Computing the waiting time distribution for the $G/G/1$ queue by signal processing methods. **(80k:68022)**
Arató, Mátyás Diffusion approximation for multiprogrammed computer systems. **(80m:68034)**
Bhattacharjee, Manish C. Applications of maximal hitting time policies in Markov chains under optional transitions. **(80f:90145)**
Borovkov, A. A. Ergodic and stability theorems for random walks in a strip and their applications. (Russian. English summary) **(80d:60090a)**
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Hamami, M. *See* **Charlot, François; et al., (80a:60086)**
Harrison, J. Michael The diffusion approximation for tandem queues in heavy traffic. **(80a:60101)**
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Curve estimation *See* **Smoothing techniques for curve estimation, 80m:62002**
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Design of experiments *See* **Proceedings: Conference on the Design of Experiments, 80j:62003**
Developments in statistics ★Developments in statistics. Vol. 2. **80j:62002**
Econometrics *See* **Colloque: CNRS, Économétrie des Données Individuelles Temporelles, 80a:62003**
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Information theory *See* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, 80a:62005; Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, 80d:62004a** *and* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, 80d:62004b**
Kyoto *See* **Theory of statistical decision functions and measurement theory, 80b:62005** *and* **Mathematical study of multivariate statistical analysis, 80f:62004**
Learning algorithms in control systems and in data processing systems ★Обучающиеся алгоритмы в системах управления и обработки информации. (Russian) [Learning algorithms in control systems and in data processing systems] **80d:62002**
Lectures:
Computational statistics *See* **Compstat Lectures, 80f:62003**
Leiden *See* **Compstat, 80a:62004**
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Marseille *See* **Actes: Colloque International DGRST-CNRS, 80j:62001**
Mathematical study of multivariate statistical analysis ★The mathematical study of multivariate statistical analysis. (Japanese) **80f:62004**
Measurement theory *See* **Theory of statistical decision functions and measurement theory, 80b:62005**

Meeting:
American Statistical Association, Business and Economic Statistics Section *See* **Proceedings: Business and Economic Statistics Section, American Statistical Association, 80b:62003**
European, Statisticians *See* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, 80a:62005**
Optimizing methods in statistics ★Optimizing methods in statistics. **80d:62003**
Panel data *See* **Colloque: CNRS, Économétrie des Données Individuelles Temporelles, 80a:62003**
Paris *See* **Colloque: CNRS, Économétrie des Données Individuelles Temporelles, 80a:62003**
Prague *See* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, 80a:62005; Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, 80d:62004a** *and* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, 80d:62004b**
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Proceedings:
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Conference on the Design of Experiments ★Proceedings of the Twenty-Fourth Conference on the Design of Experiments. **80j:62003**
National Symposium on Probability and Statistics ★Atas do 3° Simpósio Nacional de Probabilidade e Estatística. (Portuguese) [Proceedings of the 3rd National Symposium on Probability and Statistics] **80j:62004**
Random processes *See* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, 80a:62005; Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, 80d:62004a** *and* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, 80d:62004b**
San Diego, Calif. *See* **Proceedings: Business and Economic Statistics Section, American Statistical Association, 80b:62003**
São Paulo *See* **Proceedings: National Symposium on Probability and Statistics, 80j:62004**
Smoothing techniques for curve estimation ★Smoothing techniques for curve estimation. **80m:62002**
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Statistical decision functions *See* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, 80a:62005; Theory of statistical decision functions and measurement theory, 80b:62005; Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, 80d:62004a** *and* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, 80d:62004b**
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Applied Time Series *See* **Applied time series analysis, 80c:62002**
Computational Statistics *See* **Compstat, 80a:62004**
Mathematical Study of Multivariate Statistical Analysis *See* **Mathematical study of multivariate statistical analysis, 80f:62004**
Probability and Statistics *See* **Proceedings: National Symposium on Probability and Statistics, 80j:62004**
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European Meeting of Statisticians *See* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, 80a:62005**
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Workshop:
Smoothing Techniques for Curve Estimation *See* **Smoothing techniques for curve estimation, 80m:62002**

Secondary classifications:

(Dubelsson, B.) *See* **Information and systems, (80a:94001)**
(Gyires, B.) *See* **Analytic function methods in probability theory, (80m:60002)**
(Haifin, L. A.) *See* **Studies in mathematical statistics, (80j:60003)**
(Hennequin, P. L.) *See* **École d'Été: Probabilités de Saint-Flour, (80a:60005)**
(Ibragimov, I. A.) *See* **Studies in mathematical statistics, (80j:60003)**
(Rosenblatt, Murray) *See* **Studies in probability theory, (80b:60007)**
(Sudakov, V. N.) *See* **Investigations in the theory of probability distributions, (80c:60005)**
(Zolotarev, V. M.) *See* **Studies in mathematical statistics, (80j:60003)**
Analytic function methods in probability theory ★Analytic function methods in probability theory. **(80m:60002)**
Colloquium:
Methods of Complex Analysis in the Theory of Probability and Statistics *See* **Analytic function methods in probability theory, (80m:60002)**
Compiègne *See* **Information and systems, (80a:94001)**
Complex analysis *See* **Analytic function methods in probability theory, (80m:60002)**
Conference:
Prague Information Theory, Statistical Decision Functions, Random Processes *See* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80k:60004)**
Debrecen *See* **Analytic function methods in probability theory, (80m:60002)**
École d'Été:
Probabilités de Saint-Flour ★École d'Été de Probabilités de Saint-Flour. VII—1977. **(80a:60005)**
IFAC Workshop:
Information and Systems *See* **Information and systems, (80a:94001)**
Information and systems ★Information and systems. **(80a:94001)**
Information theory *See* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80k:60004)**
Investigations in the theory of probability distributions ★Исследования по теории вероятностных распределений. IV. (Russian) [Investigations in the theory of probability distributions. IV] **(80c:60005)**
Mathematical statistics *See* **Studies in mathematical statistics, (80j:60003)**
Moscow *See* **Studies in mathematical statistics, (80j:60003)**
Prague *See* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80k:60004)**
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Seminar:
Continuity and Stability in Problems of Probability Theory and Mathematical Statistics *See* **Studies in mathematical statistics, (80j:60003)**
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Studies in mathematical statistics ★Исследования по математической статистике. 3. (Russian) [Studies in mathematical statistics. 3] **(80j:60003)**
Studies in probability theory ★Studies in probability theory. **(80b:60007)**
Transactions:
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62–07 Data analysis

Borg, Ingwer *See* **Lingoes, James C., 80i:62004**
de Leeuw, Jan (*with* Pruzansky, Sandra) A new computational method to fit the weighted Euclidean distance model. **80i:62003**
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Venezia, Itzhak A decision-theoretic approach to the aggregation problem at the pre–data-collection stage. **80b:62006**

Secondary classifications:

Asano, Chooichiro *See* **Tanaka, Yutaka; et al., (80j:90100)**
Dauxois, Jacques (*with* Fine-Fontan, Jeanne; Pousse, Alain) Stabilité de la méthode de segmentation. (English summary) **(80b:62070)**
Dubrov, A. M. ★Обработка статистических данных методом главных компонент. (Russian) [Analysis of statistical data by the method of principal components] **(80g:62037)**
Fine-Fontan, Jeanne *See* **Dauxois, Jacques; et al., (80b:62070)**
Kamenskiĭ, V. S. A matrix approach to algorithms of nonmetric multidimensional scaling. **(80m:62103)**
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Lefkovitch, L. P. Consensus coordinates from qualitative and quantitative attributes. **(80k:62084)**
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Tanaka, Yutaka (*with* Asano, Chooichiro; Kodake, Kiyofumi) Application of nonlinear programming techniques to optimal scaling for ordered categories. **(80j:90100)**

62Axx Foundations

62A05 Invariance and group considerations

Florens, J.-P. Mesures a priori et invariance dans une expérience bayésienne. **80d:62005**
Matsuzaki, Nagi Statistical structure with admitting transformation group. **80b:62007**
Okuma, Akimichi Some invariant statistical decision problems with squared error loss. **80k:62005**

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62A10 The likelihood approach

Di Bacco, Mario The conformity of a model and likelihood. (Italian and French summaries) **80k:62006**
Jensen, Eva Bjørn Conditional plausibility inference in contingency tables. **80j:62005**
Mathiasen, P. E. Prediction functions. **80h:62004**

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Hinkley, David V. A note on the weighted means problem. **(80f:62032)**

62A15 The Bayesian approach

(Aykaç, Ahmet) *See* **New developments in the applications of Bayesian methods, 80a:62006**
Bernardo Herranz, José-Miguel Information theory and Bayesian design of experiments. **80b:62008**
Unacceptable implications of the left Haar measure in a standard normal theory inference problem. **80k:62007**
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Constantini, Domenico Some observations on the uniform and normal distributions as a priori probability. (Italian. English and French summaries) **80c:62003**
Field, Hartry A note on Jeffrey conditionalization. **80f:62006**
Bayesian methods *See* **New developments in the applications of Bayesian methods, 80a:62006**
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New developments in the applications of Bayesian methods ★New developments in the applications of Bayesian methods. **80a:62006**

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Copas, J. B. (*with* Dickey, James M.) A remark on likelihood, Bayes and affinity for a preconceived value. **(80e:62003)**
Dickey, James M. *See* **Copas, J. B., (80e:62003)**
de Finetti, Bruno Probability and exchangeability from a subjective point of view. (French summary) **(80k:60006)**
Johnson, Rodney W. *See* **Shore, John E., (80m:94029)**
Lane, David A. (*with* Sudderth, William D.) Diffuse models for sampling and predictive inference. **(80a:60006)**
Rubin, Donald B. Bayesian inference for causal effects: the role of randomization. **(80c:62097)**
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Sudderth, William D. *See* **Lane, David A., (80a:60006)**
Whitt, Ward A note on the influence of the sample on the posterior distribution. **(80k:62027)**

62A20 The classical approach

Secondary classifications:

Godambe, V. P. (*with* Thompson, M. E.) Some aspects of the theory of estimating equations. **(80h:62020)**
Thompson, M. E. *See* **Godambe, V. P., (80h:62020)**

62A25 The structural approach

Secondary classifications:

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Fraser, D. A. S. *See* **Brenner, David, (80k:62008)**

62A30 The fiducial approach

Pedersen, J. G. Fiducial inference. (French summary) **80e:62001**

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62A99 None of the above, but in this section

Brenner, David (*with* Fraser, D. A. S.) On foundations for conditional probability with statistical models—when is a class of functions a function. (German, French and Russian summaries) **80k:62008**
Fraser, D. A. S. *See* **Brenner, David, 80k:62008**
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Neyman, J. ★Probabilidade freqüentista e estatística freqüentista. (Portuguese) [Frequentist probability and frequentist statistics] **80b:62009**
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Spielman, Stephen Statistical dogma and the logic of significance testing. **80b:62010**

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Nguyen, Hung Trung On random sets and belief functions. **(80g:60004)**
Weber, Siegfried Mathematical foundations of measurement in empirical sciences. (Spanish) **(80k:92015)**

62Bxx Sufficiency

62B05 Sufficient statistics and fields

Basu, D. On partial sufficiency: a review. **80a:62009**
Berman, Mark Exponential families and conditioning on statistics which are not minimal sufficient. **80i:62005**
Fieger, W. Suffizienz bei verschiebungsinvarianten Schätzproblemen. (English summary) **80c:62004**
Ghosh, S. On a few measure-theoretic techniques and results. **80h:62005**
Hsu, Tong An On the coherent structure. **80m:62003**
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Rogge, Lothar *See* **Landers, Dieter, 80e:62002**
Siebert, Eberhard Pairwise sufficiency. **80c:62006**

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Denny, J. L. (*with* Wright, A. L.) On tests for Markov dependence. **(80a:62131)**
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Seely, Justus A complete sufficient statistic for the linear model under normality and a singular covariance matrix. **(80c:62083)**
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62B10 Statistical information theory

Behara, M. (*with* Kofler, E.; Menges, G.) Entropy and informativity in decision situations under partial information. **80c:62007**
Frank, Ove An application of information theory to the problem of statistical disclosure. **80a:62010**
Hajek, Bruce E. On the strong information singularity of certain stationary processes. **80j:62006**
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Kárász, Pavol A rate of growth of information. (Slovak. English and Russian summaries) **80h:62006**
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Topsøe, Flemming Information-theoretical optimization techniques. **80h:62007**
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Bagchi, Arunabha Fisher information matrix in continuous time systems. **(80g:94020)**
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Ben-Tal, A. (*with* Charnes, Abraham) A dual optimization framework for some problems of information theory and statistics. **(80m:94022)**
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DeGroot, Morris H. *See* **Goel, Prem K., (80i:62006)**
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Goel, Prem K. (*with* DeGroot, Morris H.) Comparison of experiments and information measures. **(80i:62006)**
Györfi, L. (*with* Nemetz, Tibor O. H.) f-dissimilarity: a generalization of the affinity of several distributions. **(80f:94009)**
Hammad, Pierre Shannon's information and Fisher's information for diffusion processes. **(80k:94017)**
Mesure d'ordre α de l'information au sens de Fisher. **(80a:94013)**
Hinkley, David V. *See* **Efron, Bradley, (80g:62021)**
(James, A. T.) *See* **Efron, Bradley; et al., (80g:62021)**
Johnson, Richard A. (*with* Wehrly, Thomas E.) Some angular-linear distributions and related regression models. **(80a:62070)**
Kirmani, S. N. U. A. On the relation between Matusita's and Kolmogorov's measures of distance. **(80k:94019)**

Klebanov, L. B. (*with* Melamed, I. A.) Several notes on Fisher information in presence of nuisance parameters. (German and Russian summaries) **80c:62030**
Lin'kov, Ju. M. Information in a diffusion process concerning a parameter. (Russian) **80k:94020**
Mastrangelo, Victor *See* **Mastrangelo-Dehen, Michèle, 80m:94028**
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(Sprott, D. A.) *See* **Efron, Bradley; et al., 80g:62021**
Welsrly, Thomas E. *See* **Johnson, Richard A., 80a:62070**

62B15 Comparison of experiments

DeGroot, Morris H. *See* **Goel, Prem K., 80i:62006**
García-Carrasco Aponte, M.ª Pilar Criteria for the comparison of experiments. (Spanish. English summary) **80j:62007**
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62B20 Measure-theoretic results, etc.

Diepenbrock, F. R. *See* **Plachky, Detlef, 80m:62006**
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Secondary classifications:

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Puri, Madan L. *See* **Akritas, M. G.; et al., (80d:62038)**
Roussas, George G. *See* **Akritas, M. G.; et al., (80d:62038)**

62B99 None of the above, but in this section

62Cxx Decision theory [See also 90A05; for game theory, see 90Dxx.]

62C05 General considerations

Iannotta, P. (*with* Pesarin, F.) On decision theory with auxiliary randomization. (Italian. English and French summaries) **80a:62011**
Irle, Albrecht (*with* Schmitz, Norbert) Decision theory for continuous observations. I. Bayes solutions. **80f:62007**
Nemetz, Tibor O. H. On a finite decision model. **80m:62007**
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Schmitz, Norbert *See* **Irle, Albrecht, 80f:62007**

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Chen, Robert (*with* Zame, Alan) On discounted subfair primitive casino. **(80j:60064)**
Dubins, Lester E. (*with* Sudderth, William D.) On stationary strategies for absolutely continuous houses. **(80f:60044)**
Kertz, Robert P. (*with* Nachman, David C.) Persistently optimal plans for nonstationary dynamic programming: the topology of weak convergence case. **(80h:49015)**
Nachman, David C. *See* **Kertz, Robert P., (80h:49015)**
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62C07 Complete class results

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62C10 Bayesian problems; characterization of Bayes procedures

Bernardo Herranz, José-Miguel Bayesian methods and clinical diagnosis. (Spanish. English summary) **80b:62012**
Copas, J. B. (*with* Dickey, James M.) A remark on likelihood, Bayes and affinity for a preconceived value. **80e:62003**
Dickey, James M. *See* **Copas, J. B., 80e:62003**
Ferguson, Thomas S. (*with* Phadia, Eswar G.) Bayesian nonparametric estimation based on censored data. **80f:62006**
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Mohr, H.-P. Wahl einer induktiven Methode mit entscheidungslogischen Mitteln. **(80f:03013)**
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62C12 Empirical decision procedures

Cubeddu, C. (*with* Targhetta, M. L.) On two problems of empirical Bayesian estimation. (Italian. English summary) **80a:62014**
O'Bryan, Thomas E. Rates of convergence in a modified empirical Bayes estimation problem involving Poisson distributions. **80f:62007**
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Phadia, Eswar G. (*with* Susarla, V.) An empirical Bayes approach to two-sample problems with censored data. **80m:62008**
Susarla, V. (*with* O'Bryan, Thomas E.) Empirical Bayes interval estimates involving uniform distributions. **80k:62011**
See also **Phadia, Eswar G., 80m:62008**
Targhetta, M. L. *See* **Cubeddu, C., 80a:62014**
Tortorella, Michael (*with* O'Bryan, Thomas E.) Estimation of the prior distribution by best approximation in uniformly convex function spaces. **80d:62008**

Secondary classifications:

Duncan, George T. Binary action based estimation of propensities. **(80g:62020)**
Haff, L. R. The multivariate normal mean with intraclass correlated components: estimation of urban fire alarm probabilities. **(80c:62068)**

62C15 Admissibility

Alam, Khursheed Estimation of multinomial probabilities. **80d:62009**
Brown, Lawrence D. A heuristic method for determining admissibility of estimators—with applications. **80j:62008**
Counterexample—an inadmissible estimator which is generalized Bayes for a prior with "light" tails. **80k:62012**
van der Merwe, A. J. (*with* de Waal, D. J.) The asymptotic expansion of the Stein estimators for the vector case. **80j:62009**
Olkin, Ingram (*with* Sobel, Milton) Admissible and minimax estimation for the multinomial distribution and for k independent binomial distributions. **80d:62010**
Rao, C. Radhakrishna (*with* Shinozaki, Nobuo) Precision of individual estimators in simultaneous estimation of parameters. **80f:62010**
Shinozaki, Nobuo *See* **Rao, C. Radhakrishna, 80f:62010**
Sinha, Bimal Kumar (*with* Wieand, H. S.) Admissibility and inadmissibility of the MLE when the parameter space is restricted to integers. **80f:62011**
Sobel, Milton *See* **Olkin, Ingram, 80d:62010**
de Waal, D. J. *See* **van der Merwe, A. J., 80j:62009**
Wieand, H. S. *See* **Sinha, Bimal Kumar, 80f:62011**

Secondary classifications:

Drygas, Hilmar Admissibility of certain ANOVA-estimators in simple variance-component models. **(80b:62086)**
Huan, Francis C. A stepwise Bayesian procedure. **(80f:62009)**
Joshi, V. M. Joint admissibility of the sample means as estimators of the means of finite populations. **(80g:62001)**
Sharma, Divakar Unbiased estimation of the natural parameter in an exponential family. **(80f:62035)**

62C20 Minimax procedures

Alam, Khursheed (*with* Hawkes, James S.) Minimax property of Stein's estimator. **80k:62013**
Bergs, Siegfried Zur Angabe von Verlustfunktionen bei zweiseitigen Testproblemen. **80c:62009**
Hawkes, James S. *See* **Alam, Khursheed, 80k:62013**
Millar, P. W. Asymptotic minimax theorems for the sample distribution function. **80j:62010**
Paikovskii, G. S. Experiments in mini-max decision-making problems. **80i:62008**
Sokolov, A. V. The minimax property of optimal equivariant decisions in Hilbert space. (Russian) **80k:62014**
Takada, Y. A family of minimax estimators in some multiple regression problems. **80h:62008**
Trybula, S. Minimax prediction of a sample distribution function. (Polish summary) **80d:62011**

Secondary classifications:

Duncan, George T. Binary action based estimation of propensities. **(80g:62020)**
Fomby, Thomas B. (*with* Hill, R. Carter) Multicollinearity and the minimax conditions of the Bock Stein-like estimator. **(80d:62054)**
Gleser, Leon Jay Minimax estimation of a normal mean vector when the covariance matrix is unknown. **(80h:62040)**
Hill, R. Carter *See* **Fomby, Thomas B., (80d:62054)**
Österreicher, Ferdinand On the existence of least favourable pairs of distributions. **(80m:62024)**
Rao, C. Radhakrishna (*with* Shinozaki, Nobuo) Precision of individual estimators in simultaneous estimation of parameters. **(80f:62010)**
Sapoŭnikov, P. N. Minimax and uniformly best unbiased estimates based on a finite statistical structure with quadratic loss. (Russian. English summary) **(80k:62023)**
Shinozaki, Nobuo *See* **Rao, C. Radhakrishna, (80f:62010)**
Stenger, H. A minimax approach to randomization and estimation in survey sampling. **(80c:62005)**
Strawderman, William E. Minimax adaptive generalized ridge regression estimators. **(80e:62049)**

62C25 Compound decision problems

Vardeman, Stephen B. A note on the applicability of sequence compound decision schemes. **80j:62011**

62C99 None of the above, but in this section

Secondary classifications:

Devroye, Luc P. (*with* Wagner, Terry J.) Distribution-free inequalities for the deleted and holdout error estimates. **(80g:62039)**
Diepenbrock, F. R. *See* **Plachky, Detlef, (80m:62006)**
Gupta, Shanti S. (*with* Panchapakesan, S.) ★Multiple decision procedures: theory and methodology of selecting and ranking populations. **(80m:62028)**
Klein, Roger W. (*with* Rafsky, Lawrence C.; Sibley, David S.; Willig, Robert D.) Decisions with estimation uncertainty. **(80b:90010)**
Panchapakesan, S. *See* **Gupta, Shanti S., (80m:62028)**
Plachky, Detlef (*with* Diepenbrock, F. R.) A statistical characterization of localizable measure spaces. **(80m:62006)**
Rafsky, Lawrence C. *See* **Klein, Roger W.; et al., (80b:90010)**
Shinozaki, Nobuo A note on estimating the common mean of k normal distributions and the Stein problem. **(80c:62069)**
Sibley, David S. *See* **Klein, Roger W.; et al., (80b:90010)**
Wagner, Terry J. *See* **Devroye, Luc P., (80g:62039)**
Willig, Robert D. *See* **Klein, Roger W.; et al., (80b:90010)**

62D05 Sampling theory, sample surveys

Ahsan, Olayide Comparison between the C-estimator and the B-estimator. **80c:62010**
Agarwal, C. L. *See* **Gupta, P. C., 80j:62012**
Ahsan, M. J. Allocation problem in multivariate stratified random sampling. **80f:62009**
Arnold, Barry C. (*with* Groeneveld, Richard A.) Bounds on deviations of estimates arising in finite population regression models. **80a:62015**
Bellhouse, D. R. *See* **Rao, J. N. K., 80d:62013**
Bouza Herrera, Carlos N. Preference criteria for the use of sets of inclusion probabilities for Poisson sampling strategies. (Spanish) **80b:62013**
Bulinskiĭ, A. V. (*with* Kolmogorov, A. N.) Linear sampling estimation of sums. (Russian. English summary) **80m:62009**
(Chapman, D. G.) *See* **Sandvik, Leiv, 80d:62014**
Chaudhari, B. T. *See* **Pedgaonkar, A. M.; et al., 80k:62017**
Federer, W. T. *See* **Raghavarao, D., 80m:62010**
Frank, Ove Sampling and estimation in large social networks. **80f:62012**
Franklin, Leroy A. *See* **Winkler, Robert L., 80k:62023**
Gourieroux, Christian (*with* Roy, Gildas) Enquête en deux vagues: renouvellement de l'échantillon. (English and Spanish summaries) **80d:62012**
Groeneveld, Richard A. *See* **Arnold, Barry C., 80a:62015**
Gupta, P. C. (*with* Agarwal, C. L.) A product type composite estimator for sampling on two occasions in a two-stage design. **80j:62012**
Hoem, Jan M. Correction note to discussion of: "Design-based and model-based inference in survey sampling" (Scand. J. Statist. **5** (1978), no. 1, 27–52) by C.-E. Särndal. **80c:62011**
Joshi, V. M. Estimators of the mean of a finite population. **80f:62013**
The best strategy for estimating the mean of a finite population. **80f:62014**
Joint admissibility of the sample means as estimators of the means of finite populations. **80g:62001**
Kish, Leslie Corrigenda: "Optima and proxima in linear sample designs" [J. Roy. Statist. Soc. Ser. A **139** (1976), no. 1, 80–95; MR 56 #6956]. **80k:62015**
Kolmogorov, A. N. *See* **Bulinskiĭ, A. V., 80m:62009**
Krewski, Daniel On the stability of some replication variance estimators in the linear case. **80a:62016**
Lanke, Jan Asymptotic normality in simple random sampling. **80e:62004**
Majumdar, Hiranmay (*with* Sen, Pranab Kumar) Invariance principles for jackknifing U-statistics for finite population sampling and some applications. **80f:62015**
Marasini, Donata Stratification in sampling with randomized response. (Italian. English and French summaries) **80g:62002**
Milicliori, Maria Gabriella Ottaviani A linear model in two variables for sampling without replacement. (Italian. English and French summaries) **80g:62003**
Mukhopadhyay, P. Estimating the variance of a finite population under a superpopulation model. **80k:62016**
Pedgaonkar, A. M. (*with* Chaudhari, B. T.; Prabhu-Ajgaonkar, S. G.) Selection of a unique estimator for Ikeda-Sen's sampling procedure. **80k:62017**
(*with* Prabhu-Ajgaonkar, S. G.) Comparison of sampling strategies. **80k:62018**
Prabhu-Ajgaonkar, S. G. *See* **Pedgaonkar, A. M.; et al., 80k:62017** *and* **Pedgaonkar, A. M., 80k:62018**
Raghavarao, D. (*with* Federer, W. T.) Block total response as an alternative to the randomized response method in surveys. **80m:62010**
Rao, J. N. K. (*with* Bellhouse, D. R.) Optimal estimation of a finite population mean under generalized random permutation models. **80d:62013**
Roy, Gildas *See* **Gourieroux, Christian, 80d:62012**
Royall, Richard M. Corrigenda: "The linear least-squares prediction approach to two-stage sampling" [J. Amer. Statist. Assoc. **71** (1976), no. 355, 657–664; MR 56 #9766]. **80k:62019**
Sahai, Ashok An efficient variant of the product and ratio estimators. **80k:62020**
Sampford, M. R. Predictive estimation and internal congruency. **80a:62017**
Sandvik, Leiv Erratum: "Inverse, multiple and sequential sample censuses" (Biometrics **8** (1952), 286–306) by D. G. Chapman. **80d:62014**
(Särndal, Carl-Erik) *See* **Hoem, Jan M., 80c:62011**
Sedransk, J. *See* **Singh, Bahadur, 80a:62018**
Sen, A. R. Corrigendum: "Some theory of sampling on successive occasions" [Austral. J. Statist. **15** (1973), 105–110; MR 49 #6432]. **80k:62021**
Sen, Pranab Kumar *See* **Majumdar, Hiranmay, 80f:62015**
Singh, Bahadur (*with* Sedransk, J.) Sample size selection in regression analysis when there is nonresponse. **80a:62018**
Singh, Padam The selection of samples of two units with inclusion probabilities proportional to size. **80d:62015**
Srivenkataramana, T. Change of origin and scale in ratio and difference methods of estimation in sampling. (French summary) **80g:62004**
(*with* Tracy, Derrick S.) On ratio and product methods of estimation in sampling. **80k:62022**
Stenger, H. A minimax approach to randomization and estimation in survey sampling. **80c:62005**
Sugden, R. A. Inference on symmetric functions of exchangeable populations. **80g:62005**
Thionet, Pierre D. ★Quelques problèmes concernant les sondages. **80c:62012**
L'échantillonage sélectif: une revue. (English summary) **80b:62014**
Thomsen, I. Design and estimation problems when estimating a regression coefficient from survey data. **80a:62019**
Thyregod, P. On Bayes decision rules for symmetric finite populations. **80b:62015**
Tracy, Derrick S. *See* **Srivenkataramana, T., 80k:62022**
Winkler, Robert L. (*with* Franklin, Leroy A.) Warner's randomized response model: a Bayesian approach. **80k:62023**

Secondary classifications:

Frank, Ove An application of information theory to the problem of statistical disclosure. **(80a:62010)**
Estimation of the number of connected components in a graph by using a sampled subgraph. **(80m:05093)**
Krewski, Daniel Jackknifing U-statistics in finite populations. **(80g:62011)**
Sen, Pranab Kumar Invariance principles for the coupon collector's problem: a martingale approach. **(80e:60034)**

62Exx Distribution theory [See also 60Exx.]

62E10 Characterization and structure theory

Abrahams, Julia (*with* Thomas, John B.) A note on the characterization of bivariate densities. **80h:62009a**
(*with* Thomas, John B.) Erratum: "A note on the characterization of bivariate densities with Gaussian marginal densities" (SIAM J. Appl. Math. **37** (1979), no. 2, 433–435). **80h:62009b**
Ahsanullah, M. On a characterization of the exponential distribution by spacings. **80b:62016**
Record values and the exponential distribution. **80h:62010**
Ali, Mir M. (*with* Mikhail, N. N.; Haq, M. Safiul) A class of bivariate distributions including the bivariate logistic. **80a:62020**
Arnold, Barry C. On characterization and decomposition of Cauchy random variables. **80m:62011**
Baringhaus, Ludwig *See* **Davies, P. L., 80e:62006**
Berg, Sven Characterization of a class of discrete distributions by properties of their moment distributions. **80c:62013**
Binet, F. E. Corrigendum: "Letter to the editor" (Austral J. Statist. **16** (1974), no. 3, 174 (1975)). **80a:62021**
Bingham, M. S. A characterization of the uniform distribution on the circle in the analysis of directional data. **80c:62014**
Bondesson, Lennart Correction to: "When has the sample mean as an estimator of a location or scale parameter high efficiency?" [Z. Wahrsch. Verw. Gebiete **38** (1977), no. 2, 127–146; MR 55 #4463]. **80k:62024**
Cook, Lyle Characterization of exponential and Weibull distributions through truncated statistics. **80d:62016**
Davies, P. L. (*with* Baringhaus, Ludwig) Linear statistics and exponential families. **80e:62006**
Degerine, Serge Lois de von Mises et lois liées. (English summary) **80k:62025**
Diaconis, Persi (*with* Ylvisaker, Donald) Conjugate priors for exponential families. **80f:62016**
Driscoll, Michael F. Acknowledgment of priority. Corrigendum: "On pairwise and mutual independence: characterizations of rectangular distributions" [J. Amer. Statist. Assoc. **73** (1978), no. 362, 432–433; MR 58 #18827]. **80k:62026**
Galambos, Janos (*with* Kotz, Samuel) ★Characterizations of probability distributions. **80a:62022**

Folks, J. L. (*with* Chhikara, R. S.) The inverse Gaussian distribution and its statistical application—a review. **80g:62006**

Frosini, Benito V. On the sampling distributions of two heterogeneity indices. (Italian. English and French summaries) **80b:62024**

Garncarek, Zbigniew (*with* Kuklewski, Julian) A measure of flatness of random variables that characterize the distributions of populations. (Polish. English summary) **80c:62019**

Gerstenkorn, Tadeusz Discrete multivariate truncated distributions. (Polish) **80e:62008**

Moment recurrence relations for the inflated negative binomial, Poisson and geometric distributions. **80g:62007**

Glaser, Ronald E. *See* **Chao, Min Te, 80a:62023**

Granger, C. W. J. Nearer-normality and some econometric models. **80j:62016**

Harter, H. Leon Erratum: "A new table of percentage points of the chi-square distribution" [Biometrika 51 (1964), 231–239; MR 30 #4315]. **80k:62030**

Herbin, G. *See* **Fauchon, J., 80b:62022**

Holland, Burt S. *See* **Lee, Ru Ying; et al., 80f:62020**

Hoq, A. K. M. Sirajul (*with* Ali, Mir M.; Templeton, J. G. C.) The distribution of Student's ratio for samples from an exponential population. **80g:62008**

Hutcheson, K. *See* **Lyons, N. I., 80e:62009**

Johnson, N. L. *See* **Pearson, E. S.; et al., 80c:62021**

Johnson, Richard A. (*with* Ladalla, J.; Liu, S. T.) Differential relations, in the original parameters, which determine the first two moments of the multiparameter exponential family. **80b:62023**

Joshi, P. C. On the moments of gamma order statistics. **80i:62012**

Kappenman, Russell F. On the use of a certain conditional distribution to obtain unconditional distributional results. **80b:62025**

Kochler, Kenneth A general formula for moments of the Pearson goodness-of-fit statistic for alternatives. **80m:62016**

Kogo, Kusunori Integral of the normal distribution functions. **80h:62012**

Kuklewski, Julian *See* **Garncarek, Zbigniew, 80c:62019**

Ladalla, J. *See* **Johnson, Richard A.; et al., 80b:62023**

Lai, Chin Diew A note on a family of hyperbolic secant distributions. **80b:62026**

Lee, Ru Ying (*with* Holland, Burt S.; Flueck, John A.) Distribution of a ratio of correlated gamma random variables. **80f:62020**

Lepage, Yves Negative factorial moments of positive random variables. **80a:62024**

Lingappaiah, G. S. On the Dirichlet's variables. **80j:62017**

On some general distributions in terms of generalized functions. **80m:62017**

On the mixture of generalized exponential family of distributions. **80j:62018**

Lingras, S. R. *See* **Sathe, Y. S., 80c:62022**

Liu, S. T. *See* **Johnson, Richard A.; et al., 80b:62023**

Lorah, D. J. (*with* Stark, Robert M.) On elementary functions of Pareto variables. **80c:62020**

Lyons, N. I. (*with* Hutcheson, K.) Distributional properties of Simpson's index of diversity. **80e:62009**

Makino, Toji On the use of Pareto diagrams for representation of characteristics of some distributions. (Japanese. English summary) **80k:62031**

Manderscheid, Ronald W. *See* **Smith, Paul J.; et al., 80c:62023**

Mathai, A. M. On the non-null distributions of test statistics connected with exponential populations. **80i:62013**

O'Neill, M. E. Distributional expansions for canonical correlations from contingency tables. **80f:62021**

Patil, G. P. (*with* Rao, C. Radhakrishna) Weighted distributions and size-biased sampling with applications to wildlife populations and human families. (French summary) **80e:62010**

Pearson, E. S. (*with* Johnson, N. L.; Burr, I. W.) Comparisons of the percentage points of distributions with the same first four moments, chosen from eight different systems of frequency curves. **80c:62021**

Rae, Donald S. *See* **Smith, Paul J.; et al., 80c:62023**

Rao, C. Radhakrishna *See* **Patil, G. P., 80e:62010**

Saleh, A. K. Md. Ehsanes Behrens-Fisher problem for the exponential distribution in censored and uncensored samples. **80d:62018**

Sathe, Y. S. (*with* Lingras, S. R.) Bounds for the Pearson type IV tail probabilities. **80c:62022**

(*with* Shenoy, R. G.) On inequalities for statistics similar to Student's *t*. **80j:62019**

Saw, John G. *See* **Walker, Glenn A., 80c:62024**

Saxena, Ram Kishore (*with* Dash, S. P.) The distribution of the linear combination and of the ratio of products of independent random variables associated with an *H*-function. (Hindi. English summary) **80f:62022**

Shenoy, R. G. *See* **Sathe, Y. S., 80j:62019**

Shenton, L. R. *See* **Bowman, K. O., 80c:62017** *and* **Bowman, K. O., 80e:62007**

Sibuya, Masaaki The distribution of finite order statistics. **80b:62027**

Silbergeld, Sam *See* **Smith, Paul J.; et al., 80c:62023**

Smith, Paul J. (*with* Rae, Donald S.; Manderscheid, Ronald W.; Silbergeld, Sam) Exact and approximate distributions of the chi-square statistic for equiprobability. **80c:62023**

Stark, Robert M. *See* **Lorah, D. J., 80c:62020**

Templeton, J. G. C. *See* **Hoq, A. K. M. Sirajul; et al., 80g:62008**

Tiku, M. L. (*with* Yip, D. Y. N.) A four-moment approximation based on the *F* distribution. **80j:62020**

Tretter, Marietta J. (*with* Walster, G. William) Additions and corrections: "Continued fractions for the incomplete beta function" (Ann. Math. Statist. 12 (1941), 218–223) by L. A. Aroian. **80d:62019**

Walker, Glenn A. (*with* Saw, John G.) The distribution of linear combinations of *t*-variables. **80c:62024**

Walster, G. William *See* **Tretter, Marietta J., 80d:62019**

Wani, Jagannath K. Measuring diversity in biological populations with logarithmic abundance distributions. (French summary) **80m:62018**

Yip, D. Y. N. *See* **Tiku, M. L., 80j:62020**

Gerber, Hans U. A characteristic property of the Poisson distribution. **80c:62015**

Gordon, Louis (*with* Hudson, Malcolm) Acknowledgement of priority to: "A characterization of the von Mises distribution" [Ann. Statist. 5 (1977), no. 4, 813–814; MR 55 #11460]. **80k:62027**

Govindarajulu, Zakkula Correction to: "Characterization of the exponential and power distributions" (Scand. Actuar. J. 1966, 132–136 (1967)). **80b:62017**

Gupta, Ramesh C. Waiting time paradox and size biased sampling. **80m:62012**

On the characterization of survival distributions in reliability by properties of their renewal densities. **80m:62013**

Gurland, John *See* **Tripathi, Ram C., 80m:62015**

Haq, M. Safiul *See* **Ali, Mir M.; et al., 80a:62020**

Hudson, Malcolm *See* **Gordon, Louis, 80k:62027**

Hwang, Jun Shung A note on Bernštein and Müntz-Szász theorems with applications to the order statistics. **80k:62028**

James, Ian R. Characterization of a family of distributions by the independence of size and shape variables. **80f:62017**

Janardan, K. G. (*with* Schaeffer, D. J.) Another characterization of the Weibull distribution. (French summary) **80j:62013**

(*with* Taneja, Vidya S.) Characterization of the Weibull distribution by properties of order statistics. **80m:62014**

Kent, J. T. (*with* Mardia, K.; Rao, J. S.) A characterization of the uniform distribution on the circle. **80f:62018**

Klebanov, L. B. Characterization of distributions by a property of a modified χ^2-statistic. (Russian) **80b:62018**

Parametric estimates of a density and characterization of families of distributions with sufficient statistics for the location parameter. (Russian. English summary) **80j:62014**

When does a quadratic statistic have constant regression on the sample mean? (Russian. English summary) **80j:62015**

Kotz, Samuel *See* **Galambos, Janos, 80a:62022**

Lukacs, Eugene Sur quelques propriétés des lois stables et symétriques. (English summary) **80b:62019**

A characterization of the rectangular distribution. **80b:62020**

Mardia, K. *See* **Kent, J. T.; et al., 80f:62018**

Mikhail, N. N. *See* **Ali, Mir M.; et al., 80a:62020**

Mkrtčjan, S. T. Stability of the characterizations of distributions and some characteristic properties, in a general sense, of a normal distribution. (Russian. Armenian summary) **80k:62029**

Patil, G. P. (*with* Ratnaparkhi, M. V.) Characterizations of certain statistical distributions based on additive damage models involving Rao-Rubin condition and some of its variants. **80d:62017**

Rao, J. S. *See* **Kent, J. T.; et al., 80f:62018**

Ratnaparkhi, M. V. *See* **Patil, G. P., 80d:62017**

Ruben, Harold On quadratic forms and normality. **80i:62010**

Schaeffer, D. J. *See* **Janardan, K. G., 80j:62013**

Shanbhag, D. N. On some problems in distribution theory. **80i:62011**

Shantaram, R. A characterization of the arc sine law. **80h:62011**

Taneja, Vidya S. *See* **Janardan, K. G., 80m:62014**

Thomas, John B. *See* **Abrahams, Julia, 80h:62009a** *and* **Abrahams, Julia, 80h:62009b**

Tripathi, Ram C. (*with* Gurland, John) Some aspects of the Kemp families of distributions. **80m:62015**

Ylvisaker, Donald *See* **Diaconis, Persi, 80f:62016**

Secondary classifications:

Basu, A. P. (*with* Ghosh, J. K.) Identifiability of the multinormal and other distributions under competing risks model. **(80f:62055)**

Fuchs, Aimé (*with* Letta, Giorgio) Sur certaines équations fonctionnelles liées à la loi normale. **(80h:60024)**

Ghosh, J. K. *See* **Basu, A. P., (80f:62055)**

Griffiths, R. C. (*with* Milne, R. K.) A class of bivariate Poisson processes. **(80c:60069)**

Janardan, K. G. A new functional equation analogous to Cauchy-Pexider functional equation and its application. **(80f:39009)**

Letta, Giorgio *See* **Fuchs, Aimé, (80h:60024)**

Mathai, A. M. (*with* Saxena, Ram Kishore) ★The *H*-function with applications in statistics and other disciplines. **(80a:33007)**

Milne, R. K. *See* **Griffiths, R. C., (80c:60069)**

Saxena, Ram Kishore *See* **Mathai, A. M., (80a:33007)**

62E15 Exact distribution theory

Ali, Mir M. *See* **Hoq, A. K. M. Sirajul; et al., 80g:62008**

Altham, Patricia M. E. Two generalizations of the binomial distribution. **80c:62016**

(Aroian, Leo A.) *See* **Tretter, Marietta J.; et al., 80d:62019**

Basulto, Jesús Square root versus logarithmic transformation of a gamma distribution. (Spanish) **80f:62019**

Bowman, K. O. (*with* Shenton, L. R.) Approximate percentage points for Pearson distributions. **80c:62017**

(*with* Shenton, L. R.) Further approximate Pearson percentage points and Cornish-Fisher. **80e:62007**

Burr, I. W. *See* **Pearson, E. S.; et al., 80c:62021**

Chao, Min Te (*with* Glaser, Ronald E.) The exact distribution of Bartlett's test statistic for homogeneity of variances with unequal sample sizes. **80a:62023**

Chhikara, R. S. *See* **Folks, J. L., 80g:62006**

Dash, S. P. *See* **Saxena, Ram Kishore, 80f:62022**

Dyczka, Wacław A generalized negative binomial distribution as a distribution of PSD class. (Polish and Russian summaries) **80c:62018**

Efron, Bradley Bootstrap methods: another look at the jackknife. **80b:62021**

Fauchon, J. (*with* Herbin, G.) Étude des puissances d'une variable aléatoire normale: approximation des moments. **80b:62022**

Flueck, John A. *See* **Lee, Ru Ying; et al., 80f:62020**

Secondary classifications:

Barndorff-Nielsen, Ole Hyperbolic distributions and distributions on hyperbolae. (80a:60016)
Charalambides, Ch. A. Bernoulli related polynomials and numbers. (80b:10015)
Currie, I. D. Regions of the n-sphere and related integrals. (80b:26019)
DeBruin, Robert L. *See* **Milliken, George A.,** (80a:62034)
Huang, Wen Tao (*with* Wang, Ko Chung) On a sum of product of combinations that arises in a test of homogeneity of k binomial populations. (80f:62025)
Huntington, Raymond J. Distribution of the minimum number of points in a scanning interval on the line. (80c:60024)
Jain, G. C. *See* **Khan, M. S. H.,** (80a:60125)
Kemp, Adrienne W. On probability generating functions for matching and occupancy distributions. (Polish summary) (80b:60029)
Khan, M. S. H. (*with* Jain, G. C.) A class of distributions in the first emptiness of a semi-infinite reservoir. (80a:60125)
Milliken, George A. (*with* DeBruin, Robert L.) A procedure to test hypotheses for nonlinear models. (80a:62034)
Orbetsnov, A. Estimation of the deviation of a discrete distribution with increasing intensity from a geometric distribution. (Russian) (80g:62075)
Parsons, Van L. A note on the exact distribution of a nonparametric test statistic for ordered alternatives. (80h:62035)
Springer, Melvin D. ★The algebra of random variables. (80h:60029)
Wang, Ko Chung *See* **Huang, Wen Tao,** (80f:62025)

62E20 Asymptotic distribution theory

Ali, Mir M. (*with* Kuan, K. S.) On the joint asymptotic normality of quantiles. 80f:62023
Bagoveščenskiĭ, Ju. N. Quasilinear functionals and a criterion for testing for a type of distribution. (Russian) 80a:62025
Boos, Dennis D. A differential for L-statistics. 80i:62014
Burnaev, M. V. Large deviations of the likelihood ratio process in the estimation of the parameter of a distribution from independent observations. (Russian) 80m:62019
Csörgő, Miklós (*with* Révész, Pál) On the standardized quantile process. 80h:62013
Eicker, F. The asymptotic distribution of the suprema of the standardized empirical processes. 80g:62010
Fettis, Henry E. An asymptotic expansion for the upper percentage points of the χ^2-distribution. 80h:62014
Fleming, Thomas R. Nonparametric estimation for nonhomogeneous Markov processes in the problem of competing risks. 80f:62024a
Asymptotic distribution results in competing risks estimation. 80f:62024b
Holst, Lars Asymptotic normality of sum-functions of spacings. 80j:62021
Hušková, Marie The Berry-Esseen theorem for rank statistics. 80k:62032
Jaeschke, D. The asymptotic distribution of the supremum of the standardized empirical distribution function on subintervals. 80g:62009
Kao, Chung Siung Asymptotic properties of robust estimators of maximum-likelihood type with order statistics. 80d:62020
Kraemer, Helena Chmura (*with* Paik, Minja) A central t approximation to the noncentral t distribution. 80m:62020
Krewski, Daniel Jackknifing U-statistics in finite populations. 80g:62011
Kuan, K. S. *See* **Ali, Mir M.,** 80f:62023
Leprêtre, Laurent Lois limites du jackknife de statistiques associées à des fonctionnelles dérivables au sens de von Mises. 80i:62015
Maronna, Ricardo A. *See* **Yohai, Victor J.,** 80c:62025
Nikulin, M. S. S. N. Bernšteĭn's regularity conditions in a problem of the empirical Bayes approach. (Russian. English summary) 80k:62033
Nussbaum, Michael ★Asymptotic efficiency of estimators of a multivariate linear functional relation. 80e:62011
Paik, Minja *See* **Kraemer, Helena Chmura,** 80m:62020
Perng, S.-S. Rate of convergence of estimators based on sample mean. 80a:62026
Prášková-Vízková, Zuzana A local limit theorem for Dwass statistic. 80b:62028
Révész, Pál *See* **Csörgő, Miklós,** 80h:62013
Robinson, J. An asymptotic expansion for samples from a finite population. 80i:62016
Roussas, George G. Asymptotic distribution of the log-likelihood function for stochastic processes. 80b:62029
Šalaevskiĭ, O. V. A large deviation theorem for the generalized Student ratio. (Russian. English summary) 80m:62021
Large deviation theorems in a scheme of smoothing observations with unknown weights. (Russian) 80m:62022
Scholsengeier, Johannes Zur Metrik der Diskrepanz. (English summary) 80k:62034
Walker, Joseph J. An asymptotic expansion for unbalanced quadratic forms in normal variables. 80i:62017
Yohai, Victor J. (*with* Maronna, Ricardo A.) Asymptotic behavior of M-estimators for the linear model. 80c:62025

Secondary classifications:

Akritas, M. G. (*with* Roussas, George G.) Sample size, parameter rates and contiguity—the i.n.n.i.d. case. (80i:60002)
Altavela, Michele M. *See* **Wood, Constance L.,** (80a:62064)
Antille, André On the invariance principle for signed-rank statistics. (80c:62056)
Barbour, Andrew D. On sequential versions of the generalized likelihood ratio test. (80j:62076)
Bauer, W. On the limit distribution of the entropy of random partitions. (80m:60025)
Bickel, P. J. (*with* van Zwet, W. R.) Asymptotic expansions for the power of distribution free tests in the two-sample problem. (80j:62043)
Burke, Murray D. On the asymptotic power of some k-sample statistics based on the multivariate empirical process. (80k:62061)
Chou, Rouh-Jane (*with* Muirhead, Robb J.) On some distribution problems in MANOVA and discriminant analysis. (80k:62069)
Csáki, E. (*with* Vincze, I.) On limiting distribution laws of statistics analogous to Pearson's chi-square. (German and Russian summaries) (80k:62062)
Dacunha-Castelle, Didier Vitesse de convergence pour certains problèmes statistiques. (80b:62002)
Remarque sur l'étude asymptotique du rapport de vraisemblance de deux processus gaussiens stationnaires. (English summary) (80b:62101)
Davis, A. W. On the asymptotic distribution of Gower's m^2 goodness-of-fit criterion in a particular case. (80a:62069)
Džaparidze, K. O. (*with* Nikulin, M. S.) The probability distributions of the Kolmogorov and omega-squared statistics for continuous distributions with shift and location parameters. (Russian. English summary) (80j:62044)
Feldman, Dorian (*with* Fox, Martin) Three simple inductive proofs in probability and statistics. (80k:62002)
Fisher, Lloyd *See* **Gillespie, Mary Jo,** (80i:62035)
Földes, A. *See* **Winter, B. B.; et al.,** (80d:62034)
Fox, Martin *See* **Feldman, Dorian,** (80k:62002)
Gänssler, Peter (*with* Stute, Winfried) Empirical processes: a survey of results for independent and identically distributed random variables. (80d:60002)
Gerlein, O. V. (*with* Pinkus, R.) Goodness-of-fit tests based on a measure of divergence between two scalar products. (Russian. English summary) (80a:62055)
Gillespie, Mary Jo (*with* Fisher, Lloyd) Confidence bands for the Kaplan-Meier survival curve estimate. (80i:62035)
Groeneveld, P. C. N. (*with* de Waal, D. J.) An asymptotic distribution for the coefficient in a multiple time series. (80m:62088)
Halfina, N. M. *See* **Ibragimov, I. A.,** (80c:62028)
Ibragimov, I. A. (*with* Halfina, N. M.) Some asymptotic results concerning the Chauvenet test. (Russian. English summary) (80c:62028)
Inagaki, Nobuo (*with* Ogata, Yoshihiko) Weak convergence of maximum likelihood estimators, and its applications. (Japanese) (80c:62042)
Khan, Rasul A. On strong convergence of Kolmogorov-Smirnov statistic and a sequential detection procedure. (80b:62098)
Klein, Ruben (*with* Yohai, Victor J.) Asymptotic behavior of iterative M-estimators for location. (80j:62039)
Knight, Frank B. On the absolute difference chains. (80f:60019)
Le Cam, L. (*with* Traxler, R.) On the asymptotic behavior of mixtures of Poisson distributions. (80a:62033)
McLeod, A. I. On the distribution of residual autocorrelations in Box-Jenkins models. (80a:62146)
van der Merwe, A. J. (*with* de Waal, D. J.) The asymptotic expansion of the Stein estimators for the vector case. (80j:62009)
Muirhead, Robb J. *See* **Chou, Rouh-Jane,** (80k:62069)
Nikitin, Ja. Ju. Large deviations and asymptotic efficiency of integral type statistics. I. (Russian. English summary) (80m:60041)
Nikulin, M. S. *See* **Džaparidze, K. O.,** (80j:62044)
Ogata, Yoshihiko *See* **Inagaki, Nobuo,** (80c:62042)
Philippou, Andreas N. A note on convergence in probability uniformly in a parameter. (80g:60021)
Asymptotic normality of the maximum likelihood estimate in arbitrary stochastic processes. (80h:62068)
Pinkus, R. *See* **Gerlein, O. V.,** (80a:62055)
del Pino, Guido E. On the asymptotic distribution of k-spacings with applications to goodness-of-fit tests. (80f:62053)
Reiss, R.-D. Approximate distribution of the maximum deviation of histograms. (80c:62052)
Rejtő, L. *See* **Winter, B. B.; et al.,** (80d:62034)
Roussas, George G. *See* **Akritas, M. G.,** (80i:60002)
Rüschendorf, Ludger On one-sample rank order statistics for dependent random variables. (80b:62060)
Steele, J. Michael Invalidity of average squared error criterion in density estimation. (French summary) (80j:62041)
Stute, Winfried *See* **Gänssler, Peter,** (80d:60002)
Traxler, R. *See* **Le Cam, L.,** (80a:62033)
Vincze, I. *See* **Csáki, E.,** (80k:62062)
de Waal, D. J. *See* **van der Merwe, A. J.,** (80j:62009) *and* **Groeneveld, P. C. N.,** (80m:62088)
Weiss, Lionel The error in the normal approximation to the multinomial with an increasing number of classes. (80e:60040)
Winter, B. B. (*with* Földes, A.; Rejtő, L.) Glivenko-Cantelli theorems for the product limit estimate. (Russian summary) (80d:62034)
Convergence rate of perturbed empirical distribution functions. (80d:60035)
Wood, Constance L. (*with* Altavela, Michele M.) Large-sample results for Kolmogorov-Smirnov statistics for discrete distributions. (80a:62064)
Yohai, Victor J. *See* **Klein, Ruben,** (80j:62039)
van Zwet, W. R. *See* **Bickel, P. J.,** (80j:62043)

62E25 Monte Carlo studies

Hubert, Lawrence J. *See* **Shapiro, C. P.,** 80e:62012
Margolin, Barry H. *See* **Schruben, Lee W.,** 80e:62013
Schruben, Lee W. (*with* Margolin, Barry H.) Pseudorandom number assignment in statistically designed simulation and distribution sampling experiments. 80e:62013
Shapiro, C. P. (*with* Hubert, Lawrence J.) Asymptotic normality of permutation statistics derived from weighted sums of bivariate functions. 80e:62012

Secondary classifications:

Androsenko, P. A. (*with* Efimenko, B. A.) Modification of the Monte Carlo method for the computation of local characteristics of radiation flux. (Russian) (80a:65019)
Arnason, A. N. (*with* Baniuk, L.) A computer generation of Dirichlet variates. (80h:65002)

Banisk, L. *See* **Arnason, A. N., (80h:65002)**
Beckman, R. J. *See* **McKay, M. D.; et al., (80k:65012)**
Conover, W. J. *See* **McKay, M. D.; et al., (80k:65012)**
Costächescu, Dan On the use of some dependent estimators in the solution of sytems of linear equations by the Monte Carlo method. (Romanian. French summary) **(80a:65020)**
Efimenko, B. A. *See* **Androsenko, P. A., (80a:65019)**
Gail, Mitchell H. (*with* Gastwirth, Joseph L.) A scale-free goodness-of-fit test for the exponential distribution based on the Lorenz curve. **(80a:62046)**
Gastwirth, Joseph L. *See* **Gail, Mitchell H., (80a:62046)**
Little, Roderick J. A. Maximum likelihood inference for multiple regression with missing values: a simulation study. **(80m:62068)**
McKay, M. D. (*with* Beckman, R. J.; Conover, W. J.) A comparison of three methods for selecting values of input variables in the analysis of output from a computer code. **(80k:65012)**
Zieliński, Ryszard ★Generatory liczb losowych. (Polish) [Random number generators] **(80i:65009)**

62E30 Formal computational methods (polykays, etc.)

Divgi, D. R. Calculation of univariate and bivariate normal probability functions. **80d:62021**

Secondary classifications:

Ames, Donald E. Evaluation of some cumulative distribution functions by numerical quadrature. **(80g:65021)**
Moran, P. A. P. Asymptotic analysis and local lattice central limit theorems. **(80j:60034)**

62E99 None of the above, but in this section

Ronault, Alain Lois de Zipf et sources markoviennes. (English summary) **80c:62026a**
Errata de l'article: "Lois de Zipfet sources markoviennes" (Ann. Inst. H. Poincaré Sect. B (N.S.) 14 (1978), no. 2, 169–188). **80c:62026b**

62Fxx Parametric inference

Secondary classifications:

Pham Dinh Tuan Estimation of parameters in the ARMA model when the characteristic polynomial of the MA operator has a unit zero. **(80e:62062)**

62F03 Hypothesis testing

Deshayes, Jean (*with* Picard, Dominique) Tests de rupture dans un modèle. (English summary) **80b:62030**
Dettweiler, E. Über die Existenz überall trennscharfer Tests im nicht-dominierten Fall. (English summary) **80a:62027**
Gail, Mitchell H. (*with* Gastwirth, Joseph L.) A scale-free goodness-of-fit test for the exponential distribution based on the Gini statistic. **80j:62022**
Gastwirth, Joseph L. *See* **Gail, Mitchell H., 80j:62022**
Hochberg, Yosef (*with* Marcus, Ruth) On partitioning successive increments in means or ratios of variances in a chain of normal populations. **80b:62031**
Huang, Wen Tao (*with* Wang, Ko Chung) On a sum of product of combinations that arises in a test of homogeneity of k binomial populations. **80f:62025**
Khuri, A. I. A conservative sample size for the comparison of several proportions. **80a:62028**
Kitagawa, Genshiro On the use of AIC for the detection of outliers. **80f:62026**
Koplowitz, Jack Finite memory hypothesis testing with dependent samples. **80c:62027**
Marcus, Ruth *See* **Hochberg, Yosef, 80b:62031**
Maronna, Ricardo A. (*with* Yohai, Victor J.) A bivariate test for the detection of a systematic change in mean. **80a:62029**
McCool, J. I. Analysis of single classification experiments based on censored samples from the two-parameter Weibull distribution. **80m:62023**
Nagaraja, H. N. A note on testing for the existence of an outlier. **80f:62027**
Nikulin, M. S. Testing the hypothesis of equality of parameters of several binomial laws. (Russian. French summary) **80k:62035**
Österreicher, Ferdinand On the existence of least favourable pairs of distributions. **80m:62024**
Pandey, M. (*with* Singh, J.) A note on testing mean of a normal population when variance is unknown. **80j:62023**
Pereira, Basilio de Bragança Tests for discrimination among models. **80d:62022**
Picard, Dominique *See* **Deshayes, Jean, 80b:62030**
Quesenberry, C. P. On similarity and independence properties of composite EDF goodness of fit tests. **80a:62030**
Sebeult, Allan On a problem in forensic science. **80i:62018**
Singh, J. *See* **Pandey, M., 80j:62023**
Tolley, H. Dennis A non-parametric test for composite hypotheses in survival analysis. **80a:62031**
Wang, Ko Chung *See* **Huang, Wen Tao, 80f:62025**
Yohai, Victor J. *See* **Maronna, Ricardo A., 80a:62029**

Secondary classifications:

Arnold, Steven F. A coordinate-free approach to finding optimal procedures for repeated measures designs. **(80f:62068)**
Bergs, Siegfried Zur Angabe von Verlustfunktionen bei zweiseitigen Testproblemen. **(80c:62009)**
Berman, Mark Exponential families and conditioning on statistics which are not minimal sufficient. **(80i:62005)**
Bishop, Thomas A. A Stein two-sample procedure for the general linear model with unequal error variances. **(80a:62096)**
Denny, J. L. (*with* Yakowitz, Sidney) Admissible run-contingency type tests for independence and Markov dependence. **(80e:62038)**
Gnot, Stanisław (*with* Matej, Henryk; Szulga, Teofil) An accurate test for testing the Hardy-Weinberg equilibrium hypothesis. (Polish) **(80j:92005)**
Jensen, Eva Bjørn Conditional plausibility inference in contingency tables. **(80j:62080)**
Kuk, Ju. B. A generalization of the Neyman-Pearson lemma in the theory of signal identification. (Russian. English summary) **(80d:94001)**
Lakshmanan, K. B. Compound hypothesis testing with finite memory. **(80d:68070)**
Lehmann, E. L. (*with* Shaffer, Juliet Popper) Optimum significance levels for multistage comparison procedures. **(80f:62070)**
Matej, Henryk *See* **Gnot, Stanisław; et al., (80j:92005)**
Mirvaliev, M. The rejection of outlying observations in regression analysis. (Russian. English summary) **(80c:62080)**
Pereira, Basilio de Bragança Test for the discrimination between lognormal, gamma and Weibull distributions. (Portuguese) **(80i:62087)**
Rüger, B. Das maximale Signifikanzniveau des Tests: "Lehne H_0 ab, wenn k unter n gegebenen Tests zur Ablehnung führen". (English summary) **(80i:60011)**
Shaffer, Juliet Popper *See* **Lehmann, E. L., (80f:62070)**
(Sugiura, Nariaki) *See* **Special issue: Theory and practice for categorical data analysis, (80d:62042)**
Szulga, Teofil *See* **Gnot, Stanisław; et al., (80j:92005)**
Tambane, Ajit C. Inference based on regression estimator in double sampling. **(80d:62058)**
Yakowitz, Sidney *See* **Denny, J. L., (80e:62038)**
Categorical data analysis *See* **Special issue: Theory and practice for categorical data analysis, (80d:62042)**
Special issue:
Theory and practice for categorical data analysis ★Special issue on theory and practice for categorical data analysis. **(80d:62042)**
Theory and practice for categorical data analysis *See* **Special issue: Theory and practice for categorical data analysis, (80d:62042)**

62F04 Small sample properties of tests

Al-Saadi, S. D. (*with* Scrimshaw, D. F.; Young, D. H.) Tests for independence of exponential variables. **80i:62019**
Bednarski, T. (*with* Ledwina, T.) A note on biasedness of tests of fit. (German and Russian summaries) **80b:62032**
Geriach, B. The unbiasedness of some tests for exponentiality. (German and Russian summaries) **80h:62015**
Ledwina, T. *See* **Bednarski, T., 80b:62032**
Ogawa, J. *See* **Wehrhahn, K., 80a:62032**
Scrimshaw, D. F. *See* **Al-Saadi, S. D.; et al., 80i:62019**
Wehrhahn, K. (*with* Ogawa, J.) On the use of the t-statistic in preliminary testing procedures for the Behrens-Fisher problem. **80a:62032**
Young, D. H. *See* **Al-Saadi, S. D.; et al., 80i:62019**

62F05 Asymptotic properties of tests

DeBruin, Robert L. *See* **Milliken, George A., 80a:62034**
Halfina, N. M. *See* **Ibragimov, I. A., 80c:62028**
Ibragimov, I. A. (*with* Halfina, N. M.) Some asymptotic results concerning the Chauvenet test. (Russian. English summary) **80c:62028**
Igot, J. P. Plan d'expérimentation optimal pour la comparaison de deux moyennes. **80h:62016**
Ivčenko, G. I. (*with* Medvedev, Ju. I.) Decomposable statistics and hypothesis testing. The case of small samples. (Russian. English summary) **80f:62028**
Kovner, J. L. *See* **Patil, S. A., 80m:62025**
Le Cam, L. (*with* Traxler, R.) On the asymptotic behavior of mixtures of Poisson distributions. **80a:62033**
Medvedev, Ju. I. *See* **Ivčenko, G. I., 80f:62028**
Milliken, George A. (*with* DeBruin, Robert L.) A procedure to test hypotheses for nonlinear models. **80a:62034**
van Montfort, Martin A. J. (*with* Otten, Albert) On testing a shape parameter in the presence of a location and a scale parameter. (German and Russian summaries) **80a:62035**
Otten, Albert *See* **van Montfort, Martin A. J., 80a:62035**
Patil, S. A. (*with* Kovner, J. L.) On the power of an optimum test for the mean of the inverse Gaussian distribution. **80m:62025**
Pereira, Basilio de Bragança Tests and efficiencies of separate regression models. **80k:62017**
Traxler, R. *See* **Le Cam, L., 80a:62033**
Vaeth, Michael A note on the behaviour of occurrence/exposure rates when the survival distribution is not exponential. **80j:62024**

Secondary classifications:

Barbour, Andrew D. On sequential versions of the generalized likelihood ratio test. **(80j:62076)**
Dacunha-Castelle, Didier Vitesse de convergence pour certains problèmes statistiques. **(80b:62002)**
Hsieh, H. K. On asymptotic optimality of likelihood ratio tests for multivariate normal distributions. **(80i:62049)**
Exact Bahadur efficiencies for tests of the multivariate linear hypothesis. **(80k:62076)**
Koziol, James A. Exact slopes of certain multivariate tests of hypotheses. **(80i:62050)**
Lai, Tze Leung (*with* Wijsman, Robert A.) First exit time of a random walk from the bounds $f(n) \pm cg(n)$, with applications. **(80j:60066)**
Mirvaliev, M. Rejection of outliers in angular measurements. (Russian. English summary) **(80c:62087)**

Peng, S.-S. Rate of convergence of estimators based on sample mean. (80a:62026)
Wijsman, Robert A. *See* Lai, Tze Leung. (80j:60066)

62F07 Ranking and selection

Alam, Khursheed *See* Ramey, James T., 80j:62026
Bechhofer, Robert E. (*with* Turnbull, Bruce W.) Two $(k+1)$-decision selection procedures for comparing k normal means with a specified standard. 80c:62029
See also Tamhane, Ajit C., 80g:62014
Bofinger, Eve Selection using "play-the-winner" sampling for nonnegative observations. 80g:62012
Two stage selection problem for normal populations with unequal variances. 80m:62026
Case, Gwenda J. Note on a result of Seeger in partitioning normal populations. 80j:62025
Chin, W. K. Acknowledgement of priority: "On correct selection for a ranking problem" [Ann. Inst. Statist. Math. 29 (1977), no. 1, 59–66; MR 55 #13640]. 80k:62036
Dalal, S. R. (*with* Hall, W. J.) Most economical robust selection procedures for location parameters. 80k:62037
Gupta, Shanti S. (*with* Wong, Wing Yue) On subset selection procedures for Poisson processes and some applications to the binomial and multinomial problems. 80b:62033
(*with* Panchapakesan, S.) ★Multiple decision procedures: theory and methodology of selecting and ranking populations. 80m:62028
Hall, W. J. *See* Dalal, S. R., 80k:62037
Hooper, Jeffrey H. (*with* Santner, Thomas J.) Design of experiments for selection from ordered families of distributions. 80f:62029
Miescke, Klaus-J. Identification and selection procedures based on tests. 80b:62034
Mukhopadhyay, Nitis Some comments on two-stage selection procedures. 80m:62027
Neda, Kazuo On a Bayes decision procedure for a selection of a subpopulation. (Japanese. English summary) 80h:62018
Panchapakesan, S. *See* Gupta, Shanti S., 80m:62028
Ramey, James T. (*with* Alam, Khursheed) A sequential procedure for selecting the most probable multinomial event. 80j:62026
Rasch, Dieter Selection problems in balanced block designs. (German summary) 80a:62036
Rinott, Yosef On two-stage selection procedures and related probability-inequalities. 80b:62035
Roth, Arthur J. A new procedure for selecting a subset containing the best normal population. 80k:62038
Santner, Thomas J. *See* Hooper, Jeffrey H., 80f:62029
Schriever, Karl-Heinz A truncated play-the-winner procedure for selecting the best of $k \geq 3$ binomial population. 80g:62013
Tamhane, Ajit C. (*with* Bechhofer, Robert E.) A two-stage minimax procedure with screening for selecting the largest normal mean. II. An improved PCS lower bound and associated tables. 80g:62014
Turnbull, Bruce W. *See* Bechhofer, Robert E., 80c:62029
Wilcox, Rand R. Some comments on selecting the best of several binomial populations or the bivariate normal population having the largest correlation coefficient. 80h:62019
Comparing examinees to a control. 80j:62027
Wong, Wing Yue *See* Gupta, Shanti S., 80b:62033

Secondary classifications:

Wong, Wing Yue On some nonparametric subset selection procedures for the location and scale parameters. (80a:62065)

62F10 Point estimation

Abdrabbo, N. A. (*with* Barakat, H. M.) Estimation problems in bivariate lognormal distribution. 80k:62039
Abraham, Bovas (*with* Box, George E. P.) Linear models and spurious observations. 80a:62037
Ahmadullah, M. *See* Kabir, A. B. M. Lutful, 80g:62016
Anderson, J. A. Multivariate logistic compounds. 80k:62040
Barakat, H. M. *See* Abdrabbo, N. A., 80k:62039
Bondesson, Lennart On best equivariant and best unbiased equivariant estimators in the extended Gauss-Markov model. 80j:62028
Bonitzer, J. Unicité de la solution de l'équation de vraisemblance de la loi binomiale négative. 80g:62015
Box, George E. P. *See* Abraham, Bovas, 80a:62037
Butler, G. J. *See* Sen, A. R.; et al., 80a:62041
Carroll, Raymond J. On the asymptotic distribution of multivariate M-estimates. 80k:62041
Chan, Lai K. (*with* Mak, Tak K.) On the maximum likelihood estimation of a linear structural relationship when the intercept is known. 80k:62042
(*with* Mak, Tak K.) Maximum likelihood estimation of a linear structural relationship with replication. 80j:62029
Cheng, Smiley W. Linear quantile estimation of parameters of the double exponential distribution. 80b:62036
Choi, Keewhan Asymptotic properties of least squares estimators for discrete compound distributions. 80d:62023
Cobb, George W. The problem of the Nile: conditional solution to a changepoint problem. 80f:62030
Dahiya, Ram C. (*with* Gurland, John) Estimating the parameters of a gamma distribution. 80j:62030
Dyer, Danny (*with* Keating, Jerome P.; Hensley, Onas L.) Comparison of point estimators of normal percentiles. 80c:62014
Eais, Peter *See* Pfeifer, Charles G., 80c:62038
Farewell, V. T. Some results on the estimation of logistic models based on retrospective data. 80j:62031
Fostz, Robert V. (*with* Srivastava, R. C.) Statistical inference for Markov processes when the model is incorrect. 80k:62043
Gerisanov, A. M. Optimal estimation of a discrete parameter. (Russian. English summary) 80f:62031
Godambe, V. P. (*with* Thompson, M. E.) Some aspects of the theory of estimating equations. 80h:62020
Gruenhage, Gary *See* Tarone, Robert E., 80h:62046
Gupta, A. K. (*with* Miyawaki, T.) On a uniform mixture model. 80m:62029
Gurland, John *See* Dahiya, Ram C., 80j:62030
Hensley, Onas L. *See* Dyer, Danny; et al., 80c:62014
Hinkley, David V. Correction to: "Conditional inference about a normal mean with known coefficient of variation" (Biometrika 64 (1977), no. 1, 105–108). 80b:62037
A note on the weighted means problem. 80f:62032
Hirano, Katsumi On level of significance of the preliminary test in pooling means. 80a:62038
Jani, P. N. *See* Patel, S. R., 80d:62026
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62F12 Asymptotic properties of estimators

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62F25 Tolerance and confidence regions

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Rădulescu, Marcel *See* **Frăţilă-Oancea, Elena, (80a:62105)** *and* **Frăţilă-Oancea, Elena, (80a:62106)**

Siegmund, D. Estimation following sequential tests. **(80f:62079)**

Tusnády, Gábor *See* **Marosi, Judit, (80b:62040)**

62F35 Robustness and adaptive procedures

Albers, Willem Testing the mean of a normal population under dependence. **80g:62024**
Guttman, Irwin (*with* Tiao, G. C.) Effect of correlation on the estimation of a mean in the presence of spurious observations. (French summary) **80k:62050**
Hampel, Frank Modern trends in the theory of robustness. **80i:62028**
Hettmansperger, Thomas P. *See* **McKean, Joseph W., 80c:62047**
McKean, Joseph W. (*with* Hettmansperger, Thomas P.) A robust analysis of the general linear model based on one step R-estimates. **80c:62047**
Österreicher, Ferdinand On the construction of least favourable pairs of distributions. **80c:62048**
Paul, S. R. (*with* Plackett, R. L.) Inference sensitivity for Poisson mixtures. **80f:62040**
Plackett, R. L. *See* **Paul, S. R., 80f:62040**
Portnoy, Stephen L. Further remarks on robust estimation in dependent situations. **80c:62049**
Rey, William J. J. ★Robust statistical methods. **80f:62041**
Rieder, Helmut A robust asymptotic testing model. **80c:62050**
Tan, Wai Yuan (*with* Wong, S. P.) On the effects of departure from normality on the F-ratios in a nested random effect model by mixture of normals. (German summary) **80k:62051**
Tiao, G. C. *See* **Guttman, Irwin, 80k:62050**
Wong, S. P. *See* **Tan, Wai Yuan, 80k:62051**

Secondary classifications:

Cheng, Smiley W. Linear quantile estimation of parameters of the double exponential distribution. **(80b:62036)**
Chingánda, Enock F. (*with* Subrahmaniam, Kocherlakota) Robustness of the linear discriminant function to nonnormality: Johnson's system. **(80f:62057)**
Dalal, S. R. (*with* Hall, W. J.) Most economical robust selection procedures for location parameters. **(80k:62037)**
Egorov, V. A. *See* **Gribkova, N. V., (80f:62044)**
Gribkova, N. V. (*with* Egorov, V. A.) Robust estimations of the location parameter which are linear combinations of order statistics. (Russian. English summary) **(80f:62044)**
Hall, W. J. *See* **Dalal, S. R., (80k:62037)**
Harvey, A. C. On the unbiasedness of robust regression estimators. **(80a:62102)**
Hosoya, Yuzo Robust linear extrapolations of second-order stationary processes. **(80k:60048)**
Maritz, J. S. A note on exact robust confidence intervals for location. **(80j:62047)**
Maronna, Ricardo A. *See* **Yohai, Víctor J., (80c:62025)**
Sen, Pranab Kumar Asymptotic properties of maximum likelihood estimators based on conditional specification. **(80f:62037)**
Stigler, Stephen M. Correction to: "Linear functions of order statistics with smooth weight functions" (Ann. Statist. **2** (1974), 676–693). **(80e:62032)**
Subrahmaniam, Kocherlakota *See* **Chingánda, Enock F., (80f:62057)**
Yohai, Víctor J. (*with* Maronna, Ricardo A.) Asymptotic behavior of M-estimators for the linear model. **(80c:62025)**

62F99 None of the above, but in this section

Secondary classifications:

Mathiesen, P. E. Prediction functions. **(80b:62004)**

62Gxx Nonparametric inference

Büning, Herbert (*with* Trenkler, Götz) ★Nichtparametrische statistische Methoden. **80b:62028**
Trenkler, Götz *See* **Büning, Herbert, 80b:62028**

62G05 Estimation

Ahmad, Ibrahim A. Strong consistency of density estimation by orthogonal series methods for dependent variables with applications. **80j:62037**
Akonom, Jacques Estimation de la densité de la partie continue d'une probabilité mixte. (English summary) **80b:62051**
Asselin de Beauville, J.-P. Estimation non paramétrique de la densité et du mode exemple de la distribution gamma. **80a:62049**
Berlinet, Alain Sur les méthodes "splines" en estimation de la densité. (English summary) **80b:62052**
Birnbaum, Z. William ★On the mathematics of competing risks. **80e:62019**
Bleuez, Jacques (*with* Bosq, Denis) Conditions nécessaires et suffisantes de convergence de l'estimateur de la densité par la méthode des fonctions orthogonales. **80k:62052**
See also **Bosq, Denis, 80f:62042**
Bosq, Denis (*with* Bleuez, Jacques) Étude d'une classe d'estimateurs non-paramétriques de la densité. (English summary) **80f:62042**
See also **Bleuez, Jacques, 80k:62052**
Bretagnolle, J. (*with* Huber, C.) Estimation des densités: risque minimax. **80f:62029b**
(*with* Huber, C.) Estimation des densités: risque minimax. **80f:62029a**
Brillinger, David R. A continuous form of post-stratification. **80m:62038**
Brunk, H. D. Univariate density estimation by orthogonal series. **80b:62053**
Bunadze, T. G. The accuracy of certain nonparametric estimates of the density of a multivariate distribution. (Russian. Georgian and English summaries) **80e:62020**
Cheng, K. F. *See* **Taylor, Robert L., 80h:62033**
Collomb, Gérard Conditions nécessaires et suffisantes de convergence uniforme d'un estimateur de la régression, estimation des dérivées de la régression. (English summary) **80f:62043**
Davies, H. I. *See* **Wegman, Edward J., 80h:62034**
Delabroye, Michel Convergence uniforme de certains estimateurs de la densité par la méthode "spline". (English summary) **80k:62053**
Devroye, Luc P. (*with* Wagner, Terry J.) The L_1 convergence of kernel density estimates. **80k:62054**
(*with* Wise, Gary L.) On the recovery of discrete probability densities from imperfect measurements. **80h:62029**
On the pointwise and the integral convergence of recursive kernel estimates of probability densities. **80j:62038**
Dimitrova, S. S. (*with* V"ndev, Dimit"r L.) Optimal kernels of Rosenblatt-Parzen type. (Russian) **80b:62054**
Dmitriev, Yu. G. (*with* Tarasenko, F. P.) On the use of a priori information in estimates linear functionals of distribution. (Russian summary) **80a:62050**
Egorov, V. A. *See* **Gribkova, N. V., 80f:62044**
Fazal, Sadruddin S. Density estimates of discriminant functions. **80g:62025**
Földes, A. *See* **Winter, B. B.; et al., 80d:62034**
Gol'dberg, N. I. Estimation of probability density of random processes. **80c:62051**
Greblicki, Włodzimierz (*with* Krzyzak, Adam) Nonparametric identification of a memoryless system with a cascade structure. **80k:62055**
Gribkova, N. V. (*with* Egorov, V. A.) Robust estimations of the location parameter which are linear combinations of order statistics. (Russian. English summary) **80f:62044**
Hallmov, Š. A. A nonparametric estimate of a regression curve. (Russian) **80b:62055**
Some properties of Gaussian processes connected with nonparametric density estimation. (Russian) **80k:62056**
Has'minskiĭ, R. Z. A lower bound for risks of nonparametric density estimates in the uniform metric. (Russian. English summary) **80a:62051**
Huber, C. *See* **Bretagnolle, J., 80f:62029a** *and* **Bretagnolle, J., 80f:62029b**
Ivanov, O. V. Properties of a nonparametric estimate of the regression function. (Russian. English summary) **80f:62030**
Jurečková, Jana Asymptotic relations of least-squares estimate and of two robust estimates of regression parameter vector. **80f:62045**
Klein, Ruben (*with* Yohai, Víctor J.) Asymptotic behavior of iterative M-estimators for location. **80j:62039**
Konakov, V. D. Complete asymptotic expansions for the maximum deviation of the empirical density function. (Russian. English summary) **80d:62029**
Koržova, V. N. Characteristics of the estimation of conditional densities of the probability distribution of a random vector. (Russian) **80k:62030**
Krzyzak, Adam *See* **Greblicki, Włodzimierz, 80k:62055**
Lagakos, S. W. (*with* Sommer, C. J.; Zelen, M.) Semi-Markov models for partially censored data. **80a:62052**
Laird, Nan Nonparametric maximum likelihood estimation of a mixed distribution. **80e:62021**
Leonard, Tom Density estimation, stochastic processes and prior information. **80h:62031**
Mack, Y. P. (*with* Rosenblatt, Murray) Multivariate k-nearest neighbor density estimates. **80k:62057**
Nguyen, Hung Trung Density estimation in a continuous-time stationary Markov process. **80d:62030**
Raudys, Šarūnas On the accuracy of some estimates of the multivariate density function. **80d:62031**
Reiss, R.-D. Approximate distribution of the maximum deviation of histograms. **80c:62052**
Rejtő, L. *See* **Winter, B. B.; et al., 80d:62034**
Rosenblatt, Murray *See* **Mack, Y. P., 80k:62057**
Sabry, Hegazi Sur l'estimation non paramétrique des fonctions de régression. (English summary) **80c:62053**
Sager, Thomas W. Estimation of a multivariate mode. **80f:62046**
Schlee, Walter Nonparametric regression and density estimation. **80c:62054**
Schuster, E. (*with* Yakowitz, Sidney) Contributions to the theory of nonparametric regression, with application to system identification. **80d:62032**
Shaked, Moshe An estimator for the generalized hazard rate function. **80d:62033**
Silverman, Bernard Choosing the window width when estimating a density. **80c:62055**
Singh, Radhey S. Nonparametric estimation of derivatives of average of μ-densities with convergence rates and applications. **80h:62032**
Mean squared errors of estimates of a density and its derivatives. **80j:62040**
On necessary and sufficient conditions for uniform strong consistency of estimators of a density and its derivatives. **80k:62058**
(Sirken, Monroe G.) *See* **Birnbaum, Z. William, 80e:62019**
Sommer, C. J. *See* **Lagakos, S. W.; et al., 80a:62052**
Steele, J. Michael Invalidity of average squared error criterion in density estimation. (French summary) **80j:62041**
Szilléry, E. Statistical estimation of functions of finite probability distributions. **80k:62059**
Tapia, Richard A. (*with* Thompson, James R.) ★Nonparametric probability density estimation. **80j:62042**
Tarasenko, F. P. *See* **Dmitriev, Yu. G., 80a:62050**
Taylor, Robert L. (*with* Cheng, K. F.) On the uniform complete convergence of density function estimates. **80h:62033**
Thompson, James R. *See* **Tapia, Richard A., 80j:62042**
V"ndev, Dimit"r L. *See* **Dimitrova, S. S., 80b:62054**
Wagner, Terry J. *See* **Devroye, Luc P., 80k:62054**
Wahba, Grace Improper priors, spline smoothing and the problem of guarding against model errors in regression. **80f:62047**
Wegman, Edward J. (*with* Davies, H. I.) Remarks on some recursive estimators of a probability density. **80h:62034**
Wertz, Wolfgang ★Statistical density estimation: a survey. **80e:62022**
Winter, B. B. Rate of strong uniform consistency of nonparametric density estimators. **80k:62060**
(*with* Földes, A.; Rejtő, L.) Glivenko-Cantelli theorems for the product limit estimate. (Russian summary) **80d:62034**
Wise, Gary L. *See* **Devroye, Luc P., 80h:62029**
Yakowitz, Sidney *See* **Schuster, E., 80d:62032**

Yohai, Victor J. *See* **Klein, Ruben, 80j:62039**
Zelen, M. *See* **Lagakos, S. W.; et al., 80a:62052**

Secondary classifications:

Bazen, G. Nonparametric identification for diffusion processes. **(80e:62058a)**
Errata: "Nonparametric identification for diffusion processes" (SIAM J. Control Optim. 16 (1978), no. 3, 380–395). **(80e:62058b)**
Beck, Jon M. The exponential rate of convergence of error for k_n-NN nonparametric regression and decision. (Russian summary) **(80j:62055,**
Chanda, Kamal C. (*with* Kulp, Richard W.) On some nonparametric estimators for the linear Markov scheme. **(80a:62141)**
Devroye, Luc P. (*with* Wagner, Terry J.) Distribution-free performance bounds with the resubstitution error estimate. **(80d:94005)**
Efron, Bradley Bootstrap methods: another look at the jackknife. **(80b:62021)**
Ferguson, Thomas S. (*with* Phadia, Eswar G.) Bayesian nonparametric estimation based on censored data. **(80f:62008)**
Fleming, Thomas R. Nonparametric estimation for nonhomogeneous Markov processes in the problem of competing risks. **(80f:62024a)**
Asymptotic distribution results in competing risks estimation. **(80f:62024b)**
Geertsema, J. C. (*with* Lombard, F.; Swanepoel, J. W. H.) On the asymptotic theory of Farrell's sequential confidence interval procedures. **(80a:62127)**
Gupta, A. K. (*with* Kim, B. K.) On a distribution-free discriminant analysis. **(80j:62058)**
Isogai, Eiichi On sequential estimators for jumps and reliability. **(80j:62060)**
Kim, B. K. *See* **Gupta, A. K., (80j:62058)**
Klebanov, L. B. Parametric estimates of a density and characterization of families of distributions with sufficient statistics for the location parameter. (Russian. English summary) **(80j:62014)**
Kulp, Richard W. *See* **Chanda, Kamal C., (80a:62141)**
Lombard, F. *See* **Geertsema, J. C.; et al., (80a:62127)**
Majumdar, Hiranmay (*with* Sen, Pranab Kumar) Invariance principles for jackknifing U-statistics for finite population sampling and some applications. **(80f:62015)**
Millar, P. W. Asymptotic minimax theorems for the sample distribution function. **(80j:62010)**
Nguyen, Hung Trung (*with* Pham Dinh Tuan) Sur l'utilisation du temps local en statistique des processus. (English summary) **(80m:62081)**
(*with* Pham Dinh Tuan) Estimation non paramétrique par la méthode de Grenander dans les modèles de diffusion linéaires et non stationnaires. (English summary) **(80m:62082)**
O'Bryan, Thomas E. *See* **Tortorella, Michael, (80d:62008)**
O'Hagan, A. Curve fitting and optimal design for prediction. **(80e:62053)**
Phadia, Eswar G. *See* **Ferguson, Thomas S., (80f:62008)**
Pham Dinh Tuan *See* **Nguyen, Hung Trung, (80m:62081)** *and* **Nguyen, Hung Trung, (80m:62082)**
Prakasa Rao, B. L. S. Density estimation for Markov processes using delta-sequences. **(80c:62105)**
Sager, Thomas W. An iterative method for estimating a multivariate mode and isopleth. **(80i:62048)**
Sen, Pranab Kumar *See* **Majumdar, Hiranmay, (80f:62015)**
Sirvanci, Mete *See* **Yang, Grace L., (80k:62105)**
Swanepoel, J. W. H. *See* **Geertsema, J. C.; et al., (80a:62127)**
Takahata, Hiroshi An application of the Strassen law of the iterated logarithm to density estimations. **(80m:60043)**
Tortorella, Michael (*with* O'Bryan, Thomas E.) Estimation of the prior distribution by best approximation in uniformly convex function spaces. **(80d:62008)**
Tukačinski, L. I. An estimate of the probability of failure of an element, based on test results of a series-connected system. **(80k:62104)**
Vitale, Richard A. Regression with given marginals. **(80g:62052)**
Wagner, Terry J. *See* **Devroye, Luc P., (80d:94005)**
Winter, B. B. Convergence rate of perturbed empirical distribution functions. **(80d:60035)**
Yakowitz, Sidney Nonparametric estimation of Markov transition functions. **(80f:62081)**
Yang, Grace L. (*with* Sirvanci, Mete) Corrigenda: "Estimation of a time-truncated exponential parameter used in life testing" [J. Amer. Statist. Assoc. 72 (1977), no. 358, 444–447; MR 56 #4095]. **(80k:62105)**

62G10 Hypothesis testing

Adichie, J. N. Rank tests of sub-hypotheses in the general linear regression. **80a:62053**
Akritas, Michele M. *See* **Wood, Constance L., 80a:62064**
Antille, André On the invariance principle for signed-rank statistics. **80c:62056**
Berk, Robert H. (*with* Jones, Douglas H.) Relatively optimal combinations of test statistics. **80a:62054**
Bickel, P. J. (*with* van Zwet, W. R.) Asymptotic expansions for the power of distribution free tests in the two-sample problem. **80j:62043**
Bol'shev, L. N. (*with* Mirvaliev, M.) A chi-square goodness-of-fit test for the Poisson, binomial and negative binomial distributions. (Russian. English summary) **80c:62057**
Burke, Murray D. On the asymptotic power of some k-sample statistics based on the multivariate empirical process. **80k:62061**
Chikkagoudar, M. S. Random walk and Kolmogorov-Smirnov statistic. **80i:62031**
Csáki, E. (*with* Vincze, I.) On limiting distribution laws of statistics analogous to Pearson's chi-square. (German and Russian summaries) **80k:62062**
Durbin, J. Goodness-of-fit tests based on the order statistics. **80e:62023**
Dzaparidze, K. O. (*with* Nikulin, M. S.) The probability distributions of the Kolmogorov and omega-squared statistics for continuous distributions with shift and location parameters. (Russian. English summary) **80j:62044**
Eaton, P. W. Yarnold's criterion and minimum sample size. **80b:62056**
Epstein, W. J. R. The small sample distribution of a Mann-Whitney type statistic for circular data. **80d:62035**
Friedman, Jerome H. (*with* Rafsky, Lawrence C.) Multivariate generalizations of the Wald-Wolfowitz and Smirnov two-sample tests. **80g:62026**
Gerlein, O. V. (*with* Pinkus, R.) Goodness-of-fit tests based on a measure of divergence between two scalar products. (Russian. English summary) **80a:62055**
Gordon, Robert D. On monotonicity of power of two-sample rank tests when testing the alternative G is stochastically larger than F. **80e:62024**
Govindarajulu, Zakkula (*with* Gupta, G. D.) Tests for homogeneity of scale against ordered alternatives. **80m:62039**
Gupta, G. D. *See* **Govindarajulu, Zakkula, 80m:62039**
Hashemi-Parast, S. M. (*with* Young, D. H.) Distribution free slippage tests for populations following a Lehmann model. **80f:62048**
Hettmansperger, Thomas P. (*with* McKean, Joseph W.) Statistical inference based on ranks. **80d:62036**
Hollander, Myles (*with* Sethuraman, Jayaram) Testing for agreement between two groups of judges. **80a:62056**
Hühn, M. H. A simple note on the determination of the optimal sample size in χ^2—goodness of fit—test (Comparison of observed frequencies with theoretically expected frequencies). **80i:62032**
Jones, Douglas H. Limiting Pitman efficient combinations of test statistics. **80b:62057**
See also **Berk, Robert H., 80a:62054**
Kochar, Subhash C. A class of distribution-free tests for the two-sample slippage problem. **80a:62057**
Koul, Hira L. A class of tests for testing "new is better than used". (French summary) **80m:62040**
Testing for new is better than used in expectation. **80a:62058**
Koziol, James A. A two sample Cramér-von Mises test for randomly censored data. (German summary) **80i:62033**
(*with* Petkau, Albert John) Sequential testing of the equality of two survival distributions using the modified Savage statistic. **80a:62059**
(*with* Reid, Nancy) On multiple comparisons among k populations differing by scale parameters. (German and Russian summaries) **80c:62058**
Multivariate signed rank statistics for shift alternatives. (German and Russian summaries) **80j:62045**
Krivjakova, È. N. An ω^2 type criterion for testing simple and composite hypotheses in the multivariate case. (Russian) **80g:62027**
Laga, J. *See* **Likeš, J., 80i:62034**
Lehmacher, W. (*with* Wall, K. D.) A new nonparametric approach to the comparison of K independent samples of response curves. (German summary) **80b:62058**
A new nonparametric approach to the comparison of K independent samples of response curves. II. A K sample generalization of the Friedman test. **80j:62046**
Likeš, J. (*with* Laga, J.) Supplementary critical values of the Wilcoxon matched pair signed rank statistic. (German summary) **80i:62034**
Littell, Ramon C. (*with* McClave, James T.; Offen, Walter W.) Goodness-of-fit tests for the two parameter Weibull distribution. **80e:62025**
Madsen, Richard W. A k-stage test procedure using p-values. **80f:62049**
Marcus, Ruth A note on analyzing ordered alternatives. **80b:62059**
Martynov, G. V. ★Критерии омега-квадрат. (Russian) [Omega-square tests] **80g:62028**
McClave, James T. *See* **Littell, Ramon C.; et al., 80e:62025**
McKean, Joseph W. *See* **Hettmansperger, Thomas P., 80d:62036**
Mirvaliev, M. *See* **Bol'shev, L. N., 80c:62057**
Nguyễn Văn Hộ The locally most powerful signed rank tests. **80f:62050**
Nikulin, M. S. *See* **Dzaparidze, K. O., 80j:62044**
Offen, Walter W. *See* **Littell, Ramon C.; et al., 80e:62025**
Padmanabhan, A. R. Linear rank statistics from discrete distributions and under alternatives, indexed by a vector parameter. **80d:62037**
Parsons, Van L. A note on the exact distribution of a nonparametric test statistic for ordered alternatives. **80b:62035**
Petkau, Albert John *See* **Koziol, James A., 80a:62059**
Pinkus, R. *See* **Gerlein, O. V., 80a:62055**
Prentice, M. J. On the problem of m incomplete rankings. **80k:62063**
Prentice, Ross L. Linear rank tests with right censored data. **80a:62060**
Rafsky, Lawrence C. *See* **Friedman, Jerome H., 80g:62026**
Ramani, K. V. Some Bayes tests and their asymptotic properties for the multivariate, multisample goodness-of-fit problem. **80k:62064**
Reid, Nancy *See* **Koziol, James A., 80c:62058**
Rüschendorf, Ludger On one-sample rank order statistics for dependent random variables. **80b:62060**
Rykova, L. V. Exact and limit distributions of certain rank statistics connected with samples from finite populations. (Russian) **80e:62026**
Schach, S. An alternative to the Friedman test with certain optimality properties. **80g:62029**
Schlittgen, R. The optimality of some tests for medians. (German, French and Russian summaries) **80a:62061**
Use of a median test for a generalized Behrens-Fisher problem. **80f:62051**
(Schucany, William R.) *See* **Hollander, Myles; et al., 80a:62056**
Sen, Pranab Kumar Nonparametric repeated significance tests. **80e:62027**
See also **Sinha, Agam Nath, 80k:62065**
Sethuraman, Jayaram *See* **Hollander, Myles, 80a:62056**
Sinha, Agam Nath (*with* Sen, Pranab Kumar) Progressively censored tests for clinical experiments and life testing problems based on weighted empirical distributions. **80k:62065**
Skillings, John H. (*with* Wolfe, Douglas A.) Distribution-free tests for ordered alternatives in a randomized block design. **80a:62062**
Turnbull, Bruce W. (*with* Weiss, Lionel) A likelihood ratio statistic for testing goodness of fit with randomly censored data. (French summary) **80a:62063**
Vincze, I. *See* **Csáki, E., 80k:62062**
Wall, K. D. *See* **Lehmacher, W., 80b:62058**
Weiss, Lionel Some tests of whether several samples are from identical populations. **80b:62061**
See also **Turnbull, Bruce W., 80a:62063**
Wellner, Jon A. Permutation tests for directional data. **80b:62036**
Wolfe, Douglas A. *See* **Skillings, John H., 80a:62062**

Wood, Constance L. (*with* Altavela, Michele M.) Large-sample results for Kolmogorov-Smirnov statistics for discrete distributions. **80a:62064**
On null-hypothesis limiting distributions of Kolmogorov-Smirnov type statistics with estimated location and scale parameters. **80e:62028**
Young, D. H. *See* **Hashemi-Parast, S. M., 80f:62048**
van Zwet, W. R. *See* **Bickel, P. J., 80j:62043**

Secondary classifications:

Al-Saadi, S. D. (*with* Scrimshaw, D. F.; Young, D. H.) Tests for independence of exponential variables. **(80i:62019)**
Bretagnolle, J. (*with* Huber, C.) Lois empiriques et distance de Prokhorov. **(80e:60030)**
Brooks, R. J. Bayesian analysis of a two-sample problem based on the rank order statistic. **(80a:62043)**
Burr, P. C. (*with* Young, D. H.) The power of the exponential scores test for an ordinary renewal process against trend alternatives. **(80h:62070)**
Csörgő, Miklós Strong approximations of the Hoeffding, Blum, Kiefer, Rosenblatt multivariate empirical process. **(80i:60034)**
Dacunha-Castelle, Didier Vitesse de convergence pour certains problèmes statistiques. **(80k:62002)**
Gerlach, B. ★Anpassungstests für Lebensdauerverteilungen. Konfidenzintervalle und Tests für die Verfügbarkeit reparierbarer Systeme. **(80a:62163)**
Huang, Tʻi Yüan The Chernoff efficiency of the Wilcoxon rank test. **(80e:62030)**
Huber, C. *See* **Bretagnolle, J., (80e:60030)**
Hušková, Marie The Berry-Esseen theorem for rank statistics. **(80k:62032)**
Jones, David (*with* Whitehead, John) Sequential forms of the log rank and modified Wilcoxon tests for censored data. **(80i:62069)**
Khan, Raoul A. On strong convergence of Kolmogorov-Smirnov statistic and a sequential detection procedure. **(80b:62098)**
Lehmann, E. L. (*with* Shaffer, Juliet Popper) Optimum significance levels for multistage comparison procedures. **(80f:62070)**
Manderscheid, Ronald W. *See* **Smith, Paul J.; et al., (80c:62023)**
Narayana, T. V. Recent progress and unsolved problems in dominance theory. **(80e:05019)**
Peritz, Eric (*with* Ray, Rose) Some statistical methods for survival analysis with rare failures. **(80a:62164)**
Phadia, Eswar G. (*with* Susarla, V.) An empirical Bayes approach to two-sample problems with censored data. **(80m:62008)**
Poss, Odile Test non paramétrique sur la loi d'un processus ponctuel. (English summary) **(80m:62083)**
Prášková-Vízková, Zuzana A local limit theorem for Dwass statistic. **(80b:62028)**
Rae, Donald S. *See* **Smith, Paul J.; et al., (80c:62023)**
Ray, Rose *See* **Peritz, Eric, (80a:62164)**
Saran, Jagdish *See* **Sen, Kanwar, (80i:60095)**
Scrimshaw, D. F. *See* **Al-Saadi, S. D.; et al., (80i:62019)**
Sen, Kanwar (*with* Saran, Jagdish) Joint distributions based on runs and on the number of sojourns and intersections. **(80i:60095)**
Shaffer, Juliet Popper *See* **Lehmann, E. L., (80f:62070)**
Shorack, Galen R. Weak convergence of empirical and quantile processes in sup-norm metrics via KMT-constructions. **(80i:60044)**
Silbergeld, Sam *See* **Smith, Paul J.; et al., (80c:62023)**
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62G15 Tolerance and confidence regions

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62G25 Quick and easy methods

62G30 Order statistics; empirical distribution functions

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62Hxx Multivariate analysis [See also 60Exx.]

62H05 Characterization and structure theory

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62H15 Hypothesis testing

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62H17 Contingency

Agresti, Alan (*with* Wackerly, Dennis; Boyett, James M.) Exact conditional tests for cross-classifications: approximation of attained significance levels. **80i:62051**

Akaike, Hirotugu *See* **Sakamoto, Yosiyuki, 80c:62072**

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62H20 Measures of association (correlation, canonical correlation, etc.)

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62H25 Factor analysis and principal components

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Bethlehem, Jelke *See* **Elffers, Henk; et al., 80a:62085**

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62H30 Classification and discrimination; cluster analysis [See also 68Gxx.]

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(*with* Kovrigin, A. B.; Staršinov, A. I.; Hohlov, V. A.) The problem of statistical classification based on sample distributions. (Russian) **80k:62085**
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Krzanowski, W. J. Some linear transformations for mixtures of binary and continuous variables, with particular reference to linear discriminant analysis. **80j:62060**
Krzyśko, Mirosław Sequential classification based on regression. (Russian summary) **80d:62045**
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Discriminant variables. (Russian summary) **80m:62059**
Kshirsagar, A. M. (*with* Sonvico, Violeta) A test associated with discriminant functions between π_1 and π_2 and between π_3 and π_4. **80g:62040**
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Läuter, H. *See* **Läuter, E.; et al., 80a:62090**
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Martínez Crespo, Juan On some statistical distances between populations. (Russian. English summary) **80m:62060**
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Meisalkin, L. D. (*with* Serdobol'skiĭ, V. I.) Classification errors in the case of multivariate observations. (Russian. English summary) **80f:62062a**
Meszéna, György *See* **Füstös, László; et al., 80a:62089**
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Sonvico, Violeta *See* **Kshirsagar, A. M., 80g:62040**
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A convergence criterion for optimal linear combination procedures. **80g:62042**
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Wagner, Terry J. *See* **Devroye, Luc P., 80g:62039** *and* **Devroye, Luc P., 80h:62044**
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Libenson, M. N. A nonlinear statistical method for the recognition of many classes. (Russian) **(80a:68107)**
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Niki, Naoto On computation methods for the discrimination problem by Hayashi (quantification method type II). (Japanese. English summary) **(80g:65041)**
van Otterloo, Peter J. (*with* Young, Ian T.) A distribution-free geometric upper bound for the probability of error of a minimum distance classifier. **(80d:68121)**
Šlievskiĭ, È. K. Principles of dynamical classification of stochastic processes and systems. (Russian. Lithuanian and English summaries) **(80e:62068)**
State, Luminița Toward a theory of cluster analysis. **(80a:68117)**
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62H99 None of the above, but in this section

Steck, George P. Lower bounds for the multivariate normal Mills' ratio. **80g:62043**

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Saleh, A. K. Md. Ehsanes *See* **Sen, Pranab Kumar, (80k:62066)**
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62Jxx Regression and correlation

62J02 General nonlinear regression

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Pilibossian, Philippe Régression du minimax. (English summary) **80e:62047**
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62J05 Linear regression

Aguilella, J. (*with* Basulto, Jesús) BLIMBE in the linear model. A generalization of BLUE. (Spanish) **80b:62074**
Alalouf, I. S. (*with* Styan, George P. H.) Characterizations of estimability in the general linear model. **80g:62044**
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Bellhouse, D. R. Marginal likelihood methods for distributed lag models. (German, French and Russian summaries) **80a:62095**
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62J07 Ridge regression; James-Stein estimators

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62J10 Analysis of variance and covariance

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Brown, Kenneth G. Estimation of variance components using residuals. **80a:62110**
Burdick, Donald S. Rows adjusted for columns versus simple row means in two-way ANOVA: when are the two hypotheses equivalent? **80i:62062**
Chaubey, Yogendra P. *See* **Rao, Poduri S. R. S., 80d:62056**
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Kleffe, J. Simultaneous estimation of expectation and covariance matrix in linear models (with discussions). (German and Russian summaries) **(80g:62048)**
Krafft, Olaf ★Lineare statistische Modelle und optimale Versuchspläne. **(80c:62092)**
(Rasch, Dieter) *See* **Kleffe, J., (80g:62048)**
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(Zyzal, Dominik) *See* **Kleffe, J., (80g:62048)**

62J15 Paired and multiple comparisons

Chung, F. R. K. (*with* Hwang, F. K.) Do stronger players win more knockout tournaments? **80d:62057**
Genizi, Abraham (*with* Hochberg, Yosef) On improved extensions of the *T*-method of multiple comparisons for unbalanced designs. **80e:62050**
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Marcus, Ruth A note on analyzing ordered alternatives. **(80b:62059)**
Mudholkar, Govind S. *See* **Subbaiah, Perla, (80d:62041)**
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62J99 None of the above, but in this section

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62Kxx Experimental design [See also 05Bxx.]

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62K05 Optimal designs

Agarwal, Girdhar G. (*with* Studden, W. J.) Asymptotic design and estimation using linear splines. **80j:62072**
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Optimal designs for the elimination of multi-way heterogeneity. **80e:62051**
Draper, Norman R. (*with* Herzberg, Agnes M.) An investigation of first-order and second-order designs for extrapolation outside a hypersphere. (French summary) **80h:62090**
Gaffke, N. (*with* Krafft, Olaf) Optimum designs in complete two-way layouts. **80m:62071**
Herzberg, Agnes M. *See* **Andrews, David F., 80h:62057; Bickel, P. J., 80h:62058** *and* **Draper, Norman R., 80h:62090**
Jacroux, Michael A. On the properties of proper (M, S) optimal block designs. **80i:62063**
Jones, E. R. (*with* Mitchell, T. J.) Design criteria for detecting model inadequacy. **80f:62072**
Kaliev, V. K. *See* **Krug, G. K., 80a:62113**
Kiefer, Jack C. A Diophantine problem in optimum design theory. **80b:62091**
Krafft, Olaf ★Lineare statistische Modelle und optimale Versuchsplkne. **80c:62092**
See also **Gaffke, N., 80m:62071**
Krug, G. K. (*with* Kaliev, V. K.) A D-optimal design for a class of regression functions. (Bulgarian. Russian and English summaries) **80a:62113**
Li, Wei Optimum design of discrete experiments. (Chinese. English summary) **80f:62073**
Mitchell, T. J. *See* **Jones, E. R., 80f:62072**
Mount-Campbell, Clark A. *See* **Neuhardt, John B., 80a:62114**
Nazirov, R. R. Analysis of errors arising from the realization of the approximate program of iterated measurements in the Elfving problem. (Russian) **80e:62052**
Neuhardt, John B. (*with* Mount-Campbell, Clark A.) Selection of cost-optimal 2^{k-p} fractional factorials. **80a:62114**
O'Hagan, A. Curve fitting and optimal design for prediction. **80e:62053**
Pang, Hyo Suk On the optimization of design in product space. (Korean. English summary) **80a:62115**
Papakyriazis, Panagiotis A. On the determination of maximum accuracy for regression processes with endogenous variable constraints. **80i:62064**
Pečerskaja, N. A. *See* **Sedunov, E. V., 80a:62117**
Pesotchinsky, L. Φ_p-optimal second order designs for symmetric regions. **80a:62116**
Sedunov, E. V. (*with* Pečerskaja, N. A.) Minimax designs of regression experiments with account taken of systematic error. (Russian. English summary) **80a:62117**
(*with* Bure, V. M.) Procedures that are unbiased in the L_2-metric for the design and analysis of regression experiments. (Russian. English summary) **80d:62060**
Silvey, S. D. Optimal design measures with singular information matrices. **80b:62092**
Studden, W. J. *See* **Agarwal, Girdhar G., 80j:62072**
Wiltwer, Gisela Über asymptotisch optimale Versuchsplanung im Sinne von Sacks-Ylvisaker. (English and Russian summaries) **80a:62118**
Wu, Chien Fu Some algorithmic aspects of the theory of optimal designs. **80d:62061**
(*with* Wynn, Henry P.) The convergence of general step-length algorithms for regular optimum design criteria. **80f:62074**
Wynn, Henry P. *See* **Wu, Chien Fu, 80f:62074**

Secondary classifications:

Herrendörfer, Günter The design and analysis of experiments with grouped measurements. II. Comparison of means. (German summary) **(80b:62087)**
(*with* Schmidt, J.) Estimation and test for the mean in a model II of the analysis of variance. (German summary) **(80c:62086)**
Schmidt, J. *See* **Herrendörfer, Günter, (80c:62086)**
Srivastava, J. N. A review of some recent work on discrete optimal factorial designs for statisticians and experimenters. **(80a:62122)**

62K10 Block designs

Bartlett, Maurice S. Nearest neighbour models in the analysis of field experiments. **80c:62093**
Bhattacharya, C. G. Yates type estimators of a common mean. **80i:62065**
Bose, R. C. Combinatorial problems of experimental design. I. Incomplete block designs. **80g:62054**
Chandak, M. L. (*with* Misra, B. L.) On construction of PBIB designs through 2^n factorials. **80g:62055**
Cotter, Sarah C. Block designs for fractional factorial experiments with replication. **80b:62093**
Das, A. D. *See* **Saha, G. M., 80h:62059**
Dey, A. *See* **Singh, M., 80m:62072**
Federer, W. T. *See* **Shafiq, M., 80j:62074**
Foody, W. (*with* Hedayat, A.) Correction to: "On theory and applications of BIB designs with repeated blocks" [Ann. Statist. **5** (1977), no. 5, 932–945; MR **57** #1788]. **80h:62091**
Giovagnoli, Alessandra Combinatorial designs and designs of experiments. (Italian. English summary) **80i:62066**
Hedayat, A. *See* **Foody, W., 80h:62091**
Kageyama, Sanpei Comparison of the bounds for the block intersection number of incomplete block designs. **80c:62094**
Mathematical expression of an inequality for a block design. **80h:62092**
(*with* Tsuji, Takumi) Inequality for equireplicated n-ary block designs with unequal block sizes. **80j:62073**
Liu, Chang Wen A new family of association schemes derived from orthogonal Latin squares. (Chinese. English summary) **80f:62075**
Mejza, S. Use of inter-block information to obtain uniformly better estimators of treatment contrasts. (German and Russian summaries) **80i:62067**
Misra, B. L. *See* **Chandak, M. L., 80g:62055**
Mukhopadhyay, A. C. Incomplete block designs through orthogonal and incomplete orthogonal arrays. **80a:62119**
Pal, Satyabrata On designs with one-way and two-way elimination of heterogeneity. **80e:62054**
Saha, G. M. (*with* Das, A. D.) An infinite class of PBIB designs. (French summary) **80h:62059**
Shafiq, M. (*with* Federer, W. T.) Generalized N-ary balanced block designs. **80j:62074**
Singh, M. (*with* Dey, A.) On analysis of some augmented block designs. **80m:62072**
Tar, László A generalized model for a Latin square design. (Hungarian. English summary) **80g:62056**
Tsuji, Takumi *See* **Kageyama, Sanpei, 80j:62073**

Secondary classifications:

Agrawal, H. L. (*with* Sharma, K. L.) On construction of four-dimensional incomplete block designs. **(80c:05021)**
Bose, R. C. (*with* Chakravarti, I. M.; Knuth, Donald E.) Errata: "On methods of constructing sets of mutually orthogonal Latin squares using a computer. II" (Technometrics **3** (1961), 111–117). **(80a:05033)**
Čepurin, E. V. (*with* Fehrmann, P.) On inequalities for functionals of bivariate distributions with monotone failure rates. (German and Russian summaries) **(80i:62084)**
Chakravarti, I. M. *See* **Bose, R. C.; et al., (80a:05033)**
Drake, David A. (*with* Jungnickel, Dieter) Klingenberg structures and partial designs. I. Congruence relations and solutions. **(80d:05017a)**
Fehrmann, P. *See* **Čepurin, E. V., (80i:62084)**
Fuji-Hara, Ryoh On automatical construction for orthogonal designs of experiments. **(80c:05036)**
Hedayat, A. (*with* Wallis, W. D.) Hadamard matrices and their applications. **(80e:05037)**
Jacroux, Michael A. On the properties of proper (M, S) optimal block designs. **(80i:62063)**
Jungnickel, Dieter *See* **Drake, David A., (80d:05017a)**
Knuth, Donald E. *See* **Bose, R. C.; et al., (80a:05033)**
Mullin, Ronald C. (*with* Stinson, D. R.; Wallis, W. D.) Skew squares of low order. **(80i:05021)**
Pellegrino, Giuseppe t-designs associated with nondegenerate conics in a Galois plane of odd order. **(80a:05027)**
Rasch, Dieter Selection problems in balanced block designs. (German summary) **(80a:62036)**
Saha, G. M. A note on combining two partially balanced incomplete block designs. **(80j:05019)**
Shah, Shantilal M. Corrigendum: "On some block structure properties of a BIBD"

(Calcutta Statist. Assoc. Bull. 24 (1975), no. 93-96, 127–130 (1976)). (80a:05028)

Sharma, K. L. *See* Agrawal, H. L., (80c:05021)

Shrikhande, S. S. (*with* Singhi, N. M.) A note on embedding of orthogonal arrays of strength two. (80j:05025)

Singhi, N. M. *See* Shrikhande, S. S., (80j:05025)

Stinson, D. R. *See* Mullin, Ronald C.; et al., (80i:05021)

Wallis, W. D. *See* Hedayat, A., (80c:05037) *and* Mullin, Ronald C.; et al., (80i:05021)

62K15 Factorial designs

Addelman, Sidney *See* Taubman, Stephen B., 80d:62063

Anderson, Donald A. (*with* Thomas, Ann M.) Resolution IV fractional factorial designs for the general asymmetric factorial. 80m:62073

Bohrer, Robert (*with* Sheft, Judith) Misclassification probabilities in 2^3 factorial experiments. 80j:62075

Chalton, D. O. *See* Raktoe, B. L.; et al., 80m:62075

Chopra, D. V. Trace-optimal balanced 2^9 reduced designs of resolution V with 46 to 54 runs. 80d:62062

Das, A. D. *See* Kageyama, Sanpei; et al., 80c:62095

Dean, A. M. The analysis of interactions in single replicate generalized cyclic designs. 80a:62120

Giovagnoli, Alessandra On the construction of factorial designs using abelian group theory. 80b:62060

Gupta, Bhisham Chand An infinite series of balanced 2^m factorial designs of resolution III plus one plan. 80g:62057

See also Srivastava, J. N., 80b:62062

Kageyama, Sanpei (*with* Saha, G. M.; Das, A. D.) Reduction of the number of associate classes of hypercubic association schemes. 80c:62095

Kuwada, Masahide Optimal balanced fractional 3^m factorial designs of resolution V and balanced third-order designs. 80m:62074

Nigam, A. K. *See* Puri, P. D., 80c:62096

Pesotan, H. (*with* Raktoe, B. L.; Worthley, R. G.) On main effect fold-over designs. 80b:62061

Puri, P. D. (*with* Nigam, A. K.) Balanced factorial experiments. II. 80c:62096

Raktoe, B. L. (*with* Rayner, A. A.; Chalton, D. O.) On construction of confounded mixed factorial and lattice designs. 80m:62075

See also Pesotan, H.; et al., 80b:62061

Rayner, A. A. *See* Raktoe, B. L.; et al., 80m:62075

Saha, G. M. *See* Kageyama, Sanpei; et al., 80c:62095

Sheft, Judith *See* Bohrer, Robert, 80j:62075

Shirakura, Teruhiro On aliasing in fractional 2^m factorial designs of even resolution. 80a:62121

Srivastava, J. N. A review of some recent work on discrete optimal factorial designs for statisticians and experimenters. 80a:62122

(*with* Gupta, Bhisham Chand) Main effect plan for 2^m factorials which allow search and estimation of one unknown effect. 80b:62062

Taubman, Stephen B. (*with* Addelman, Sidney) Some two-level multiple-response factorial plans. 80d:62063

Thomas, Ann M. *See* Anderson, Donald A., 80m:62073

Worthley, R. G. *See* Pesotan, H.; et al., 80b:62061

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Banerjee, Kali S. ★On the factorial approach providing the true index of cost of living. (80h:90032)

Chandak, M. L. (*with* Misra, B. L.) On construction of PBIB designs through 2^n factorials. (80g:62055)

Cotter, Sarah C. Block designs for fractional factorial experiments with replication. (80b:62093)

Gaffke, N. (*with* Krafft, Olaf) Optimum designs in complete two-way layouts. (80m:62071)

Krafft, Olaf *See* Gaffke, N., (80m:62071)

Misra, B. L. *See* Chandak, M. L., (80g:62055)

Mount-Campbell, Clark A. *See* Neuhardt, John B., (80a:62114)

Neuhardt, John B. (*with* Mount-Campbell, Clark A.) Selection of cost-optimal 2^{k-p} fractional factorials. (80a:62114)

62K99 None of the above, but in this section

Dey, A. *See* Singh, M., 80i:62068

Mercado, R. (*with* Raghavarao, D.) On designs balanced for residual effects. 80a:62123

Raghavarao, D. *See* Mercado, R., 80a:62123

Rubin, Donald B. Bayesian inference for causal effects: the role of randomization. 80c:62097

Singh, M. (*with* Dey, A.) Two-way elimination of heterogeneity. 80i:62068

Secondary classifications:

Cornell, John A. Experiments with mixtures: an update and bibliography. (80i:62001)

Makarova, S. B. On the optimal choice of observation times in a problem of distinguishing between stochastic processes. (Russian. English summary) (80j:62082)

62Lxx Sequential methods

Wetherill, G. Barrie ★Sequential methods in statistics. 80f:62076

62L05 Sequential design

Berry, Donald A. (*with* Fristedt, Bert) Bernoulli one-armed bandits—arbitrary discount sequences. 80f:62077

Franz, J. (*with* Magiera, R.) On sequential plans for the exponential class of processes. (Polish summary) 80d:62064

Fristedt, Bert *See* Berry, Donald A., 80f:62077

Gittins, J. C. Bandit processes and dynamic allocation indices. 80h:62063

Jones, P. W. On the two-armed bandit with one probability known. 80b:62094

Magiera, R. *See* Franz, J., 80d:62064

Palkovskii, G. S. Hierarchical models of experiments in Bayesian theory of decision making (generalization of problems of search for defects). 80d:62065

Pfaff, Franz Verallgemeinerte Bayes-Verfahren bei sequentiellen Testproblemen. (English and Russian summaries) 80c:62098

Presman, È. L. (*with* Sonin, I. M.) The "two-armed bandit" problem in continuous time. (Russian) 80g:62058

Robbins, Herbert (*with* Whitehead, John) Sequential rank and the Pólya urn. 80d:62066

Sonin, I. M. *See* Presman, È. L., 80g:62058

Wei, L. J. On the random allocation design for the control of selection bias in sequential experiments. 80a:62124

An application of an urn model to the design of sequential controlled clinical trials. 80f:62078

Weitzman, Martin L. Optimal search for the best alternative. 80e:62055

Whitehead, John *See* Robbins, Herbert, 80d:62066

Secondary classifications:

Boffinger, Eve Selection using "play-the-winner" sampling for nonnegative observations. (80g:62012)

Koplowitz, Jack Finite memory hypothesis testing with dependent samples. (80c:62027)

62L10 Sequential analysis

Barbour, Andrew D. On sequential versions of the generalized likelihood ratio test. 80j:62076

Beier-Küchler, Ingeborg Der sequentielle Quotiententest bei irreduziblen homogenen Markovschen Ketten mit endlichem Zustandsraum. (English and Russian summaries) 80c:62099

★On the exponential class of processes with independent increments—analytical treatment and sequential probability ratio tests. 80k:62093

Borgan, Ørnulf Comparison of two sequential tests for two-sided alternatives. 80m:62076

Bratcher, T. L. *See* Mann, J. E., 80k:62094

Jones, David (*with* Whitehead, John) Sequential forms of the log rank and modified Wilcoxon tests for censored data. 80f:62069

Khan, Rasul A. A note on testing the means of normal distributions with known coefficient of variations. 80b:62095

Kiefer, Jack C. Sequential statistical methods. 80m:62077

Lai, Tze Leung (*with* Siegmund, D.) A nonlinear renewal theory with applications to sequential analysis. II. 80c:62100

Sequential tests for hypergeometric distributions and finite populations. 80d:62067

Lombard, F. A sequential test for the mean of an inverse Gaussian distribution. 80b:62096

Mann, J. E. (*with* Bratcher, T. L.) On Bayes sequential tests regarding two Koopman-Darmois distributions: bounds on the maximum sample size. 80k:62094

Siegmund, D. Estimation following sequential tests. 80f:62079

Confidence intervals related to sequential test for the exponential distribution. 80j:62077

See also Lai, Tze Leung, 80c:62100

Šimelis, Česlovas Bayesian and minimax solution of a hypothesis testing problem. (Russian. Lithuanian and English summaries) 80e:62056

Tantaratana, Sawasd (*with* Thomas, John B.) Truncated sequential probability ratio test. 80j:62078

Thomas, John B. *See* Tantaratana, Sawasd, 80j:62078

Whitehead, John *See* Jones, David, 80f:62069

Yahav, Joseph A. On a screening problem. 80g:62059

Secondary classifications:

Fortus, Robert Approximations to Bayesian sequential tests of composite hypotheses. (80f:62080)

Kazakos, Dimitri (*with* Papantoni-Kazakos, P.) Sequential detection between Poisson processes. (80k:94006)

Koziol, James A. (*with* Petkau, Albert John) Sequential testing of the equality of two survival distributions using the modified Savage statistic. (80a:62059)

Lai, Tze Leung (*with* Wijsman, Robert A.) First exit time of a random walk from the bounds $f(n) \pm cg(n)$, with applications. (80j:60066)

Mukhopadhyay, Nitis Some comments on two-stage selection procedures. (80m:62027)

Papantoni-Kazakos, P. *See* Kazakos, Dimitri, (80k:94006)

Petkau, Albert John *See* Koziol, James A., (80a:62059)

Rinott, Yosef On two-stage selection procedures and related probability-inequalities. (80b:62035)

Schriever, Karl-Heinz A truncated play-the-winner procedure for selecting the best of $k > 3$ binomial population. (80g:62013)

Sen, Pranab Kumar *See* Sinha, Agam Nath, (80k:62065)

Sinha, Agam Nath (*with* Sen, Pranab Kumar) Progressively censored tests for clinical experiments and life testing problems based on weighted empirical distributions. (80k:62065)

Tai, Yung Chiu (*with* Zimmer, William J.) An optimality of Beattie's continuous sampling plan. (80h:62073)

Volodin, I. N. Lower bounds for average sample size and efficiency of procedures of statistical inference. (Russian. English summary) (80f:62038)

Wijsman, Robert A. *See* Lai, Tze Leung, (80j:60066)

Williams, James S. Efficient analysis of Weibull survival data from experiments on

heterogeneous patient populations. (French summary) (80f:62090)
Zhmoor, William J. *See* Tai, Yung Chiu, (80h:62073)

62L12 Sequential estimation

Alvo, Mayer Sequential estimation of a truncation parameter. 80a:62125
Ardanuy Albájar, Ramón Optimal sequential estimation of a binomial distribution with divergence loss function. (Spanish. English summary) 80a:62126
Carroll, Raymond J. Sequential confidence intervals for the mean of a subpopulation of a finite population. 80g:62060
Csenki, Attila A note on confidence sequences in multiparameter exponential families. 80j:62079
Franz, J. *See* Winkler, Wolfgang, 80i:62070
Geertsema, J. C. (*with* Lombard, F.; Swanepoel, J. W. H.) On the asymptotic theory of Farrell's sequential confidence interval procedures. 80a:62127
Govindarajulu, Zakkula Corrigendum: "Fixed width confidence intervals for the coefficient of variation" [Bull. Inst. Math. Acad. Sinica 4 (1976), no. 2, 273–279; MR 58 #3241]. 80k:62095
Inagi, Elichi On sequential estimators for jumps and reliability. 80j:62080
Kapadia, C. H. (*with* Kromer, R. E.) Sample size required to estimate a parameter in the power function distribution. (Spanish summary) 80b:62097
Khan, Rasul A. On confidence sequences for the mean vector of a multivariate normal distribution. 80d:62068
Kromer, R. E. *See* Kapadia, C. H., 80b:62097
Lombard, F. *See* Geertsema, J. C.; et al., 80a:62127
Swanepoel, J. W. H. *See* Geertsema, J. C.; et al., 80a:62127
Vardi, Y. Asymptotic optimality of certain sequential estimators. 80h:62064
Volodin, I. N. Optimum sample size in statistical inference procedures. (Russian) 80h:62065
Winkler, Wolfgang (*with* Franz, J.) Sequential estimation problems for the exponential class of processes with independent increments. 80i:62070
Zieliński, Ryszard A stopping rule for sequential estimation processes. Two existence theorems. (Russian summary) 80a:62128

Secondary classifications:

Majumdar, Hiranmay (*with* Sen, Pranab Kumar) Invariance principles for jackknifing *U*-statistics for finite population sampling and some applications. (80f:62015)
Rasmussen, Shelley L. (*with* Starr, Norman) Optimal and adaptive stopping in the search for new species. (80m:62078)
Sen, Pranab Kumar *See* Majumdar, Hiranmay, (80f:62015)
Starr, Norman *See* Rasmussen, Shelley L., (80m:62078)

62L15 Optimal stopping [See also 60G40.]

Fortus, Robert Approximations to Bayesian sequential tests of composite hypotheses. 80f:62080
Lorenzen, Thomas J. Generalizing the secretary problem. 80d:62069
Rasmussen, Shelley L. (*with* Starr, Norman) Optimal and adaptive stopping in the search for new species. 80m:62078
Sakaguchi, Minoru Dowry problems and OLA policies. 80g:62061
Shapiro, C. P. (*with* Wardrop, Robert L.) The Bayes sequential procedure for estimating the arrival rate of a Poisson process. 80g:62062
Starr, Norman *See* Rasmussen, Shelley L., 80m:62078
Stewart, Theodor J. Optimal selection from a random sequence with learning of the underlying distribution. 80g:62063
Tamaki, Mitsushi OLA policy and the best choice problem with random number of objects. 80m:62079
Vardi, Y. Asymptotic optimal sequential estimators: the Poisson case. 80h:62066
Wardrop, Robert L. *See* Shapiro, C. P., 80g:62062

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Goldys, Beniamin The secretary problem—the case with memory for one step. (80c:60062)
Irle, Albrecht (*with* Schmitz, Norbert) Minimax strategies for discounted "secretary problems". (80i:60059)
Jones, P. W. On the two-armed bandit with one probability known. (80b:62094)
Mucci, A. G. Existence and explicit determination of optimal stopping times. (80k:60055)
Presman, È. L. (*with* Sonin, I. M.) The "two-armed bandit" problem in continuous time. (Russian) (80g:62058)
Schmitz, Norbert *See* Irle, Albrecht, (80i:60059)
Sonin, I. M. *See* Presman, È. L., (80g:62058)
Tamaki, Mitsushi A secretary problem with double choices. (Japanese summary) (80m:60056)

62L20 Stochastic approximation

Auber, Dan A stochastic Newton-Raphson method. 80k:62096
Anisimova, Z. P. Convergence of recurrent procedures of Robbins-Monro type in a scheme of series. (Russian. English summary) 80a:62129
Athreya, K. B. *See* Sen, Prodip, 80c:62102
Baltrūnas, Jonas (*with* Golosov, Ju. I.) Estimates of the linear operator parameters for stochastic adaptation algorithms. I. Discrete time, methods, convergence. (Russian. Lithuanian summary) 80g:62064a
(*with* Golosov, Ju. I.) Estimates of the linear operator parameters for stochastic adaptation algorithms. II. Discrete time, moments, asymptotic normality. (Russian. Lithuanian summary) 80g:62064b
(*with* Golosov, Ju. I.) Estimates of the linear operator parameters for stochastic adaptation algorithms. III. Continuous time. (Russian. Lithuanian summary) 80g:62064c
Benveniste, Albert (*with* Goursat, Maurice; Ruget, Gabriel) Un résultat de convergence des algorithmes d'approximation stochastique. (English summary) 80c:62101
Borodin, A. N. A stochastic approximation procedure for weakly dependent observations. (Russian. English summary) 80h:62067
Clark, Dean S. *See* Kushner, Harold J., 80g:62065
Goldenberg, Priscila *See* Kelmanson, Milton L., 80i:62071
Golosov, Ju. I. *See* Baltrūnas, Jonas, 80g:62064a; Baltrūnas, Jonas, 80g:62064b *and* Baltrūnas, Jonas, 80g:62064c
Goursat, Maurice *See* Benveniste, Albert; et al., 80c:62101
Kelmanson, Milton L. (*with* Goldenberg, Priscila) A convergent "small steps" feasible directions stochastic approximation algorithm. 80i:62071
Kushner, Harold J. (*with* Clark, Dean S.) ★Stochastic approximation methods for constrained and unconstrained systems. 80g:62065
Medovyĭ, V. S. *See* Žulenev, S. V., 80g:62068
Ruget, Gabriel *See* Benveniste, Albert; et al., 80c:62101
Sen, Prodip (*with* Athreya, K. B.) On stochastic approximation procedures in continuous time. 80c:62102
Walk, H. Martingales and the Robbins-Monro procedure in $D[0, 1]$. 80g:62066
Zieliński, Ryszard A randomized Kiefer-Wolfowitz procedure. 80g:62067
Žulenev, S. V. (*with* Medovyĭ, V. S.) The strong law of large numbers and the normality of Kesten's procedure. (Russian. English summary) 80g:62068

Secondary classifications:

Bondarev, B. V. Method of stochastic approximation of the solution of ill-posed problems. (Russian) (80k:65051)
Davisson, Lee D. *See* Kazakos, Dimitri, (80k:94009)
Kazakos, Dimitri (*with* Davisson, Lee D.) An improved decision-directed detector. (80k:94009)
Kersting, Götz Dietrich A weak convergence theorem with application to the Robbins-Monro process. (80j:60033)

62L99 None of the above, but in this section

Khan, Rasul A. On strong convergence of Kolmogorov-Smirnov statistic and a sequential detection procedure. 80b:62098

Secondary classifications:

Krzyśko, Mirosław Sequential classification methods. (Polish) (80e:62043)
Sen, Pranab Kumar Weak convergence of some quantile processes arising in progressively censored tests. (80g:60022)

62Mxx Inference from stochastic processes

62M02 Markov processes: hypothesis testing

Burnaev, M. V. Minimax detection of an imperfectly known signal against a background of Gaussian white noise. (Russian. English summary) 80e:62057
Dickey, David A. (*with* Fuller, Wayne A.) Distribution of the estimators for autoregressive time series with a unit root. 80i:62072
Fuller, Wayne A. *See* Dickey, David A., 80i:62072
Miroshnichenko, T. P. Distinguishing between two simple hypotheses with delayed observations. (Russian) 80c:62103
Newman, Charles M. (*with* Stuck, B. W.) Chernoff bounds for discriminating between two Markov processes. 80i:62073
(*with* Stuck, B. W.) Optimal sampling of independent increment processes. 80m:62080
Prakasa Rao, B. L. S. The rate of convergence of Bernštein-von Mises approximation for Markov processes. 80k:62097
Stuck, B. W. *See* Newman, Charles M., 80i:62073 *and* Newman, Charles M., 80m:62080

Secondary classifications:

Arora, Vinder Some generalizations in Markov renewal processes. (80d:60118)
Beier-Küchler, Ingeborg Der sequentielle Quotiententest bei irreduziblen homogenen Markovschen Ketten mit endlichem Zustandsraum. (English and Russian summaries) (80c:62099)
★On the exponential class of processes with independent increments—analytical treatment and sequential probability ratio tests. (80k:62093)
Salter, Richard Small-time limit theorems for stationary independent increment processes. (80m:60039)

62M05 Markov processes: estimation

Aalen, Odd O. (*with* Johansen, Søren) An empirical transition matrix for non-homogeneous Markov chains based on censored observations. 80a:62130
Bai, Do Sun (*with* Kim, Seong In) Estimation of transition probabilities in a two-state Markov chain. 80j:62081
Banon, G. Nonparametric identification for diffusion processes. 80e:62058a
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Bellach, Joachim Schätzungen in stochastischen Differenzen- und Differentialgleichungssystemen. 80d:62070
Denny, J. L. (*with* Wright, A. L.) On tests for Markov dependence. 80a:62131
Dion, Jean-Pierre (*with* Keiding, Niels) Statistical inference in branching processes. 80d:62072
(*with* Esty, Warren) Estimation problems in branching processes with random environments. 80d:62071
Esty, Warren *See* Dion, Jean-Pierre, 80d:62071

Feigin, Paul D. Some comments concerning a curious singularity. **80g:62069**
Fleming, Thomas R. (*with* Harrington, David P.) A note on efficiencies for estimators in varying environments. **80k:62098**
Gillert, Heinz Maximum-Likelihood-Schätzungen für Parameter in homogenen Markovschen Ketten. (English and Russian summaries) **80c:62104**
Harrington, David P. *See* **Fleming, Thomas R., 80k:62098**
Ibragimov, I. Š. Estimation of the correlation function of a process that is obtained from the Wiener process with the aid of a special transformation. (Russian) **80d:62073**
Johansen, Søren The product limit estimator as maximum likelihood estimator. **80d:62074**
See also **Aalen, Odd O., 80a:62130**
Kelding, Niels *See* **Dion, Jean-Pierre, 80d:62072**
Kim, Seong In *See* **Bai, Do Sun, 80j:62081**
Kutojanc, Ju. A. Estimation of a parameter of a diffusion type process. (Russian. English summary) **80d:62075**
Lindqvist, Bo A note on Bernoulli trials with dependence. **80b:62100**
Makarova, S. B. On the optimal choice of observation times in a problem of distinguishing between stochastic processes. (Russian. English summary) **80j:62082**
Nanthi, K. Estimation of the criticality parameter of a supercritical branching process with random environments. **80j:62083**
Nguyen, Hung Trung Sur l'estimation dans les processus de Markov. (English summary) **80b:62099**
(*with* Pham Dinh Tuan) Sur l'utilisation du temps local en statistique des processus. (English summary) **80m:62081**
(*with* Pham Dinh Tuan) Estimation non paramétrique par la méthode de Grenander dans les modèles de diffusion linéaires et non stationnaires. (English summary) **80m:62082**
Pham Dinh Tuan *See* **Nguyen, Hung Trung, 80m:62081** *and* **Nguyen, Hung Trung, 80m:62082**
Prakasa Rao, B. L. S. Density estimation for Markov processes using delta-sequences. **80c:62105**
Ramsey, Bo On necessary and sufficient conditions for consistency of MLE's in Markov chain models. **80a:62132**
Shaikh, A. Amendments and corrections: "Statistical inference for Markov chains with lumped states" (Biometrika 63 (1976), no. 1, 211–213). **80a:62133**
Teodorescu, Dan Modeling Markovian biological systems via optimization operators. **80a:62134**
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Yakowitz, Sidney Nonparametric estimation of Markov transition functions. **80f:62081**

Secondary classifications:

Dickey, David A. (*with* Fuller, Wayne A.) Distribution of the estimators for autoregressive time series with a unit root. **80l:62072**
Franz, J. *See* **Winkler, Wolfgang, 80l:62070**
Fuller, Wayne A. *See* **Dickey, David A., 80l:62072**
Georgin, J. P. Estimation et contrôle des chaînes de Markov sur des espaces arbitraires. **80b:60047**
Heyde, C. C. On an optimal asymptotic property of the maximum likelihood estimator of a parameter from a stochastic process. **80l:62077**
Lindgren, Georg Markov regime models for mixed distributions and switching regressions. **80c:62032**
Nguyen, Hung Trung Density estimation in a continuous-time stationary Markov process. **80d:62030**
(*with* Pham Dinh Tuan) Loi des grands nombres pour les martingales et application à la statistique. (English summary) **80e:60041**
Pham Dinh Tuan *See* **Nguyen, Hung Trung, 80e:60041**
Prakasa Rao, B. L. S. The rate of convergence of Bernštein-von Mises approximation for Markov processes. **80k:62097**
Winkler, Wolfgang (*with* Franz, J.) Sequential estimation problems for the exponential class of processes with independent increments. **80l:62070**

62M07 Non-Markovian processes: hypothesis testing

Beinicke, G. Application of the Davidon-Fletcher-Powell method for finding estimates of the parameters with good asymptotic properties. (Russian. Georgian and English summaries) **80l:62074**
Cornol, Jean (*with* Dacunha-Castelle, Didier) Sur la formule de Chernoff pour deux processus gaussiens stationnaires. (English summary) **80d:62076**
Dacunha-Castelle, Didier Remarque sur l'étude asymptotique du rapport de vraisemblance de deux processus gaussiens stationnaires. (English summary) **80b:62101**
See also **Cornol, Jean, 80d:62076**
Guegan, Dominique Tests d'hypothèses séparées pour des processus stochastiques. (English summary) **80l:62075**
Jolivet, E. Caractérisation et test du caractère agrégatif des processus ponctuels stationnaires sur R^2. **80b:62102**
Krickeberg, Klaus Statistical problems of point processes. (Polish) **80c:62106**
Mišiukas, Rimantas An estimate of the probability of misclassification of autoregressive sequences. (Russian. Lithuanian and English summaries) **80l:62076**
Pons, Odile Test non paramétrique sur la loi d'un processus ponctuel. (English summary) **80m:62063**
Štulajter, František Nonlinear estimators of polynomials in mean values of a Gaussian stochastic process. **80a:62135**

Secondary classifications:

Aşkar, Murat (*with* Derin, Haluk; Yurtseven, H. Öner) On joint detection and estimation of Gauss-Markov processes. **(80m:93080)**
Derin, Haluk *See* **Aşkar, Murat; et al., (80m:93080)**
Roussas, George G. Asymptotic distribution of the log-likelihood function for stochastic processes. **(80b:62029)**
Yurtseven, H. Öner *See* **Aşkar, Murat; et al., (80m:93080)**

62M09 Non-Markovian processes: estimation

Aalen, Odd O. Nonparametric inference for a family of counting processes. **80a:62137**
Caines, Peter E. *See* **Rissanen, Jorma, 80g:62071**
Diggle, Peter J. On parameter estimation for spatial point processes. **80d:62077**
Heyde, C. C. On an optimal asymptotic property of the maximum likelihood estimator of a parameter from a stochastic process. **80l:62077**
Ivanov, O. V. A solution of the problem of detecting hidden periodicities. (Russian. English summary) **80c:62107**
Morozov, A. M. (*with* Sudakov, D. M.) The variance of an estimate of the mean value of a stationary random process. (Russian) **80d:62078**
Ogata, Yoshihiko The asymptotic behaviour of maximum likelihood estimators for stationary point processes. **80a:62136**
Ozaki, T. Maximum likelihood estimation of Hawkes' self-exciting point processes. **80d:62079**
Pham Dinh Tuan Sur l'adéquation du modèle de processus auto-regressif multivarié. **80g:62070**
Phillippou, Andreas N. Asymptotic normality of the maximum likelihood estimate in arbitrary stochastic processes. **80b:62068**
Rissanen, Jorma (*with* Caines, Peter E.) The strong consistency of maximum likelihood estimators for ARMA processes. **80g:62071**
Shimizu, Ryoichi Entropy maximization principle and selection of the order of an autoregressive Gaussian process. **80c:62108**
Sudakov, D. M. *See* **Morozov, A. M., 80d:62078**
Timofeev, L. L. Estimation of the parameters of Gaussian random fields. (Russian. Lithuanian and English summaries) **80l:62078**
Watson, G. S. Estimating the intensity of a Poisson process. **80d:62080**

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Bagchi, Arunabha Fisher information matrix in continuous time systems. **(80g:94020)**
Fellous, A. (*with* Granara, J.; Krickeberg, Klaus) Statistics of stationary oriented line Poisson processes in the plane. **(80b:60024)**
Franz, J. (*with* Magiera, R.) On sequential plans for the exponential class of processes. (Polish summary) **(80d:62064)**
Granara, J. *See* **Fellous, A.; et al., (80b:60024)**
Krickeberg, Klaus *See* **Fellous, A.; et al., (80b:60024)**
Magiera, R. *See* **Franz, J., (80d:62064)**

62M10 Time series, auto-correlation, regression, etc. [See also 90A20.]

Abraham, Bovas (*with* Box, George E. P.) Deterministic and forecast-adaptive time-dependent models. **80d:62081**
Abrahamse, A. P. J. *See* **Dubbelman, C.; et al., 80m:62086**
Akaike, Hirotugu Covariance matrix computation of the state variable of a stationary Gaussian process. **80h:62069**
See also **Gray, H. L.; et al., 80e:62059**
Andersen, Allan *See* **Granger, C. W. J., 80b:62105** *and* **Granger, C. W. J., 80d:62082**
Anderson, O. D. The algebraic structure of moving average time processes. (German and Russian summaries) **80a:62138**
On the invertibility conditions for moving average processes. (German and Russian summaries) **80m:62084**
On the individual moving average inequality. **80a:62139**
A complete proof of a time series inequality with some implications. (French and Italian summaries) **80a:62140**
Some sample autocovariance function results for a once integrated φth-order moving average process. (Italian and French summaries) **80j:62084**
Baillie, Richard T. The asymptotic mean squared error of multistep prediction from the regression model with autoregressive errors. **80m:62085**
Box, George E. P. *See* **Abraham, Bovas, 80d:62081**
Burr, P. C. (*with* Young, D. H.) The power of the exponential scores test for an ordinary renewal process against trend alternatives. **80h:62070**
Chanda, Kamal C. (*with* Kulp, Richard W.) On some nonparametric estimators for the linear Markov scheme. **80a:62141**
Cochlar, Jiří Smoothing and extrapolation of incomplete time series. **80b:62103**
Diesperova, M. M. A sequential method for estimating parameters and discriminating between hypotheses. The Bayesian approach. (Russian) **80f:62082**
Dubbelman, C. (*with* Louter, A. S.; Abrahamse, A. P. J.) On typical characteristics of economic time series and the relative qualities of five autocorrelation tests. **80m:62086**
Dunsmuir, W. A central limit theorem for parameter estimation in stationary vector time series and its application to models for a signal observed with noise. **80l:62079**
de Falguerolles, Antoine Autorégression avec écrêtement. **80j:62085**
Fuller, Wayne A. *See* **Hasza, David P., 80f:62084**
Gapoškin, V. F. Strong consistency of estimates of the trend of a time series. (Russian) **80m:62087**
Godfrey, L. G. Testing the adequacy of a time series model. **80k:62099**
de Gooijer, J. G. On the inverse of the autocovariance matrix for a general mixed autoregressive moving average process. **80a:62142**
Granger, C. W. J. (*with* Andersen, Allan) Non-linear time series modelling. **80d:62082**
Some new time series models: non-linear, bilinear and non-stationary. **80b:62104**
(*with* Andersen, Allan) On the invertibility of time series models. **80b:62105**
See also **Gray, H. L.; et al., 80e:62059**
Gray, H. L. (*with* Kelley, G. D.; McIntire, D. D.) A new approach to ARMA modeling. **80e:62059**
Groenewald, P. C. N. (*with* de Waal, D. J.) An asymptotic distribution for the coefficient in a multiple time series. **80m:62088**

Gross, S. (*with* Steiger, W. L.) Least absolute deviation estimates in autoregression with infinite variance. **80f:62083**

Hallin, Marc Mixed autoregressive-moving average multivariate processes with time-dependent coefficients. **80a:62143**

Harvey, A. C. (*with* Phillips, G. D. A.) Maximum likelihood estimation of regression models with autoregressive-moving average disturbances. **80j:62086**

Hasza, David P. (*with* Fuller, Wayne A.) Estimation for autoregressive processes with unit roots. **80f:62084**

Heyde, C. C. (*with* Johnstone, I. M.) On asymptotic posterior normality for stochastic processes. **80m:62089**

Holevo, A. S. *See* **Rasulov, N. P., 80e:62061**

Hosking, J. R. M. A unified derivation of the asymptotic distributions of goodness-of-fit statistics for autoregressive time-series models. **80h:62071**

Huyberechts, Simone Estimation des paramètres dans le modèle linéaire général dynamique. (English summary) **80f:62089**

Ishii, Naohiro (*with* Iwata, Akira; Suzumura, Nobuo) Evaluation of an autoregressive process by information measure. **80a:62144**

Iwata, Akira *See* **Ishii, Naohiro; et al., 80a:62144**

Johnstone, I. M. *See* **Heyde, C. C., 80m:62089**

Katzoff, M. J. (*with* Shumway, R. H.) Distributed lag regression with an almost periodic design matrix. **80a:62145**

Kelley, G. D. *See* **Gray, H. L.; et al., 80e:62059**

Kimeldorf, George *See* **Peele, Lawrence, 80f:62086**

Kligienė, Nerutė The exact distribution of the maximum likelihood estimate of the time of parameter change in an autoregression. (Russian. Lithuanian and English summaries) **80f:62085**

Koiu, R. Local and global identification and strong consistency in time series models. **80m:62090**

Kowalski, A. *See* **Pleszczyńska, E.; et al., 80d:62086**

Krebin, V. V. (*with* Petunin, Ju. I.) A study of the efficiency of estimates of coefficients of linear regression by the computer simulation method. I. (Russian. English summary) **80d:62083a**

(*with* Petunin, Ju. I.) A study of the efficiency of estimates of coefficients of linear regression by the computer simulation method. II. (Russian. English summary) **80d:62083b**

Kulp, Richard W. *See* **Chanda, Kamal C., 80a:62141**

Ledolter, Johannes A recursive approach to parameter estimation in regression and time series models. **80j:62087**

Inference robustness of ARIMA models under non-normality—special application to stock price data. **80e:62060**

Louter, A. S. *See* **Dubbelman, C.; et al., 80m:62086**

Matuszewski, A. *See* **Pleszczyńska, E.; et al., 80d:62086**

McIntire, D. D. *See* **Gray, H. L.; et al., 80e:62059**

McLeod, A. I. On the distribution of residual autocorrelations in Box-Jenkins models. **80a:62146**

Murthy, Vrudhula K. (*with* Narasimham, Gorti V. L.) On the asymptotic normality and independence of the sample partial autocorrelations for an autoregressive process. **80m:62091**

Nakatsuka, Toshinao Regions of autocorrelation coefficients in AR(p) and EX(p) processes. **80a:62147**

Narasimham, Gorti V. L. *See* **Murthy, Vrudhula K., 80m:62091**

Nguyen Ho Quynh On the mixed autoregressive moving average model. (Russian summary) **80a:62148**

Pagano, Marcello On periodic and multiple autoregressions. **80d:62084**

Peele, Lawrence (*with* Kimeldorf, George) Time series prediction functions based on imprecise observations. **80f:62086**

Peterka, V. Experience accumulation for decision making in multivariate time series. **80d:62085**

Petunin, Ju. I. *See* **Krebin, V. V., 80d:62083a** *and* **Krebin, V. V., 80d:62083b**

Pham Dinh Tuan Estimation of parameters in the ARMA model when the characteristic polynomial of the MA operator has a unit zero. **80e:62062**

Phillips, G. D. A. *See* **Harvey, A. C., 80j:62086**

Pleszczyńska, E. (*with* Kowalski, A.; Matuszewski, A.) Decision schemes of parameter identification in time series analysis. (German and Russian summaries) **80d:62086**

Rao, Malempati Madhusudana Covariance analysis of nonstationary time series. **80a:62149**

Rasulov, N. P. (*with* Holevo, A. S.) A regression problem for processes with continuous time. (Russian. English summary) **80e:62061**

Estimation of polynomial-trigonometric regression coefficients. (Russian) **80j:62088**

Reinsel, Greg Maximum likelihood estimation of stochastic linear difference equations with autoregressive moving average errors. **80j:62089**

(Robinson, Enders A.) *See* **Gray, H. L.; et al., 80e:62059**

Robinson, Peter M. Statistical inference for a random coefficient autoregressive model. **80a:62150**

Sakai, Hideaki (*with* Soeda, Takashi; Tokumaru, Hidekatsu) On the relation between fitting autoregression and periodogram with applications. **80b:62106**

Savin, N. E. (*with* White, Kenneth J.) Estimation and testing for functional form and autocorrelation. A simultaneous approach. **80m:62092**

Schmid, Friedrich Strong consistency of non-linear least squares estimators in the presence of stochastic regressors. (German, French and Russian summaries) **80d:62087**

Senkus, Algimantas The determination of the change point in an autoregressive sequence. **80m:62093**

Shumway, R. H. *See* **Katzoff, M. J., 80a:62145**

Soeda, Takashi *See* **Sakai, Hideaki; et al., 80b:62106**

Špilevskis, E. Interpolation, filtration, extrapolation and classification of multivariate partially observed autoregressive processes with moving average residuals. **80m:62094**

Steiger, W. L. *See* **Gross, S., 80f:62083**

Suzumura, Nobuo *See* **Ishii, Naohiro; et al., 80a:62144**

Terdik, György Representation of an autoregressive field by moving averages, and the maximum likelihood estimation of its mean. (Hungarian. Russian summary) **80g:62072**

Tokumaru, Hidekatsu *See* **Sakai, Hideaki; et al., 80b:62106**

Toyooka, Yasuyuki Weak and strong consistency of simple least squares estimators in regression models and uniform strong consistency of residual sample spectral density in the error process. **80f:62087**

(Tukey, John W.) *See* **Gray, H. L.; et al., 80e:62059**

Vainu, Ja. The construction of regression models on the basis of time series. (Russian. English summary) **80c:62109**

de Waal, D. J. *See* **Groenewald, P. C. N., 80m:62088**

Wecker, William E. A note on the time series which is the product of two stationary time series. **80d:62088**

White, Kenneth J. *See* **Savin, N. E., 80m:62092**

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Young, D. H. *See* **Burr, P. C., 80b:62070**

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(Belsley, David A.) *See* **Zellner, Arnold, (80m:62108)**

Chipman, John S. Efficiency of least-squares estimation of linear trend when residuals are autocorrelated. **(80b:62076)**

(Christ, Carl F.) *See* **Zellner, Arnold, (80m:62108)**

Guttman, Irwin (*with* Tiao, G. C.) Effect of correlation on the estimation of a mean in the presence of spurious observations. (French summary) **(80k:62050)**

Hosoya, Yuzo High-order efficiency in the estimation of linear processes. **(80e:62016)**

(Kuh, Edwin) *See* **Zellner, Arnold, (80m:62108)**

Monfort, Alain Approche de Box-Jenkins et approche économétrique des séries temporelles. (English and Spanish summaries) **(80j:62101)**

Nakamizo, Takayoshi Identification of time series models. I. Model description and parameter estimation. (Japanese) **(80e:93179a)**

Identification of time series models. II. On-line estimation and order determination. (Japanese) **(80e:93179b)**

(Robinson, Peter M.) *See* **Zellner, Arnold, (80m:62108)**

(Rothenberg, Thomas J.) *See* **Zellner, Arnold, (80m:62108)**

Tiao, G. C. *See* **Guttman, Irwin, (80k:62050)**

Tong, H. The asymptotic joint distribution of the estimated autoregressive coefficients. **(80a:93159)**

Wittwer, Gisela Über asymptotisch optimale Versuchsplanung im Sinne von Sacks-Ylvisaker. (English and Russian summaries) **(80a:62118)**

Zellner, Arnold Statistical analysis of econometric models. **(80m:62108)**

62M15 Spectral analysis of time series

Abdrabbo, N. A. (*with* Mattar, A.) A cusum test for detecting change in the transfer functions of open loop stochastic systems. **80a:62151**

A new approach to the problem of estimating spectral parameters of nonstationary time series models. **80m:62095**

Battaglia, Francesco (*with* Carlucci, Francesco) Bayesian inference for the spectral density. (Italian. English and French summaries) **80b:62107**

Byrd, R. H. (*with* Tapia, Richard A.; Thompson, James R.) Optimal smoothing of direct estimates of the power spectrum. **80d:62089**

Carlucci, Francesco *See* **Battaglia, Francesco, 80b:62107**

Droesbeke, Fernand Analyse fréquentielle de processus stochastiques non stationnaires: estimation et propriétés. (English summary) **80c:62110**

Gray, H. L. (*with* Houston, A. G.; Morgan, F. W.) On G-spectral estimation. **80e:62063**

Gutowski, Paul R. *See* **Treitel, Sven; et al., 80b:62109**

Houston, A. G. *See* **Gray, H. L.; et al., 80e:62063**

Hurii, Mituaki Corrections to: "On a spectral estimate obtained by an autoregressive model fitting" (Ann. Inst. Statist. Math. 29 (1977), no. 3, 415–431). **80b:62108**

Kailath, Thomas *See* **Morf, Martin; et al., 80e:62066**

Lee, Daniel T. L. *See* **Morf, Martin; et al., 80e:62066**

Leiner, Bernd ★Spektralanalyse ökonomischer Zeitreihen. **80e:62064**

Levit, B. Ja. (*with* Samarov, A. M.) A remark on the estimation of a spectral function. (Russian) **80a:62152**

Mattar, A. *See* **Abdrabbo, N. A., 80a:62151**

Morettin, Pedro Alberto Introduction to spectral analysis of time series. (Portuguese) **80e:62065**

Estimation of the spectrum and of the covariance function of a dyadic-stationary series. **80k:62100**

Morf, Martin (*with* Vieira, Augusto C.; Lee, Daniel T. L.; Kailath, Thomas) Recursive multichannel maximum entropy spectral estimation. **80e:62066**

Morgan, F. W. *See* **Gray, H. L.; et al., 80e:62063**

Popov, Ju. D. On the problem of the estimation of the spectral density of a homogeneous and isotropic random field on the plane. (Russian. English summary) **80a:62153**

Rice, John On the estimation of the parameters of a power spectrum. **80k:62101**

Robinson, Enders A. *See* **Treitel, Sven; et al., 80b:62109**

Robinson, Peter M. Alternative models for stationary stochastic processes. **80a:62154**

Samarov, A. M. *See* **Levit, B. Ja., 80a:62152**

Taniguchi, Masanobu On estimation of parameters of Gaussian stationary processes. **80k:62081**

Tapia, Richard A. *See* **Byrd, R. H.; et al., 80d:62089**

Thompson, James R. *See* **Byrd, R. H.; et al., 80d:62089**

Treitel, Sven (*with* Gutowski, Paul R.; Robinson, Enders A.) Empirical spectral analysis revisited. **80b:62109**

Vieira, Augusto C. *See* **Morf, Martin; et al., 80e:62066**

Wittwer, Gisela Über die asymptotische Verteilung des Periodogramms stationärer Gaussscher zufälliger Folgen. (English and Russian summaries) **80c:62111**

Žurbenko, I. G. An estimate of the spectral density of a stationary process. (Russian. Uzbek summary) **80f:62089**

Local properties of estimate of spectral function. **80m:62096**

Spectral density estimates with a weak dependence on far frequencies. (Russian. English summary) **80a:62155**

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On the efficiency of estimates of a spectral density. **80j:62090**

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Ishii, Naohiro (*with* Iwata, Akira; Suzumura, Nobuo) Segmentation of nonstationary time series. **(80h:94016)**

Ivanov, O. V. (*with* Leonenko, M. M.) On the convergence of distributions of functionals of an estimate of a covariance function. (Russian. Lithuanian and English summaries) **(80b:60049)**

Iwata, Akira *See* **Ishii, Naohiro; et al., (80h:94016)**

Katzoff, M. J. (*with* Shumway, R. H.) Distributed lag regression with an almost periodic design matrix. **(80a:62145)**

Leonenko, M. M. *See* **Ivanov, O. V., (80b:60049)**

Mélard, Guy Propriétés du spectre évolutif d'un processus non stationnaire. (English summary) **(80d:60041)**

Morettin, Pedro Alberto On homogeneous stochastic processes on compact abelian groups. **(80f:60048)**

Shumway, R. H. *See* **Katzoff, M. J., (80a:62145)**

Suzumura, Nobuo *See* **Ishii, Naohiro; et al., (80h:94016)**

Toyooka, Yasuyuki Weak and strong consistency of simple least squares estimators in regression models and uniform strong consistency of residual sample spectral density in the error process. **(80f:62087)**

Watson, G. S. Characteristic statistical problems of stochastic geometry. **(80c:60022)**

62M20 Prediction [See also 60G25.]; filtering [See also 60G35, 93E10, 93E11.]

Box, George E. P. *See* **Ledolter, Johannes, 80i:62082**

Friel, James O. A convergence rate for adaptive prediction of time series using a modified conjugate direction method. **80j:62091**

Galasc, Tadeusz (*with* Mikuś, Jan) A mathematical model of the innovation process. (Polish. Russian and English summaries) **80a:62157**

Janssen, Jacques Some prediction problems in semi-Markov queueing models and related topics. **80a:62158**

Ledolter, Johannes (*with* Box, George E. P.) Conditions for the optimality of exponential smoothing forecast procedures. **80i:62082**

Meade, Nigel Bivariate forecasting with a variable leadtime. **80k:62102**

Mikuś, Jan *See* **Galasc, Tadeusz, 80a:62157**

Poole, Lawrence Characterizations of autoregressive prediction and moving average prediction as discrete-time spline interpolation. **80e:62067**

Pierce, David A. Signal extraction error in nonstationary time series. **80j:62092**

Saretsalo, Lauri On prediction and mean-estimation for a Hilbert space valued time series. **80i:62083**

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Secondary classifications:

Akaike, Hirotugu Covariance matrix computation of the state variable of a stationary Gaussian process. **(80h:62069)**

See also **Gray, H. L.; et al., (80e:62059)**

(Granger, C. W. J.) *See* **Gray, H. L.; et al., (80e:62059)**

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Hajek, Bruce E. On the strong information singularity of certain stationary processes. **(80j:62006)**

Kelley, G. D. *See* **Gray, H. L.; et al., (80e:62059)**

Krickeberg, Klaus Statistical problems of point processes. (Polish) **(80c:62106)**

Ledolter, Johannes A recursive approach to parameter estimation in regression and time series models. **(80j:62087)**

McIntire, D. D. *See* **Gray, H. L.; et al., (80e:62059)**

Pallaschke, Diethard Orlicz space techniques in prediction theory. **(80e:60055)**

Piranashvili, Z. A. (*with* Sulaberidze, T. G.) On optimal prediction and filtering of nonlinearly transformed Gaussian random processes. (Russian. Georgian and English summaries) **(80m:60051)**

(Robinson, Enders A.) *See* **Gray, H. L.; et al., (80e:62059)**

Špilevskis, E. Interpolation, filtering, extrapolation and classification of partially observed autoregressive processes and of a moving average. (Russian. Lithuanian and English summaries) **(80d:60059)**

Sulaberidze, T. G. *See* **Piranashvili, Z. A., (80m:60051)**

(Tukey, John W.) *See* **Gray, H. L.; et al., (80e:62059)**

62M99 None of the above, but in this section

Ishii, Naohiro (*with* Iwata, Akira; Suzumura, Nobuo) Classification of nonstationary time series by Kullback's information measure. (Japanese. English summary) **80g:62073**

Iwata, Akira *See* **Ishii, Naohiro; et al., 80g:62073**

Jakeman, A. J. (*with* Scheaffer, R. L.) On the properties of product integration estimators for linear functionals of particle size distributions. **80b:62110**

Rebolledo, Rolando Sur les applications de la théorie des martingales à l'étude statistique d'une famille de processus ponctuels. **80a:62160**

Scheaffer, R. L. *See* **Jakeman, A. J., 80b:62110**

Šilevskiĭ, É. K. Principles of dynamical classification of stochastic processes and systems. (Russian. Lithuanian and English summaries) **80e:62068**

Suzumura, Nobuo *See* **Ishii, Naohiro; et al., 80g:62073**

Wickwire, K. The expected first-passage time for a sufficient statistic arising in the Poisson disorder problem. **80g:62074**

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Cameron, M. A. (*with* Hannan, E. J.) Measuring the properties of plane waves. **(80e:86001)**

Coleman, Rodney ★An introduction to mathematical stereology. **(80k:60017)**

Deshayes, Jean (*with* Picard, Dominique) Tests de rupture dans un modèle. (English summary) **(80b:62030)**

Hannan, E. J. *See* **Cameron, M. A., (80e:86001)**

(Kashyap, R. L.) *See* **Stoica, Petre, (80g:93092)**

Landers, Dieter (*with* Rogge, Lothar) On linearity of s-predictors. **(80h:60074)**

Miles, Roger E. The importance of proper model specification in stereology. **(80f:60015)**

Picard, Dominique *See* **Deshayes, Jean, (80b:62030)**

Rogge, Lothar *See* **Landers, Dieter, (80h:60074)**

Stoica, Petre Comments on: "A Bayesian comparison of different classes of dynamic model using empirical data" (IEEE Trans. Automat. Control **AC-22** (1977), no. 5, 715–727) by R. L. Kashyap. **(80g:93092)**

Vardi, Y. Asymptotic optimal sequential estimators: the Poisson case. **(80h:62066)**

62Nxx Engineering statistics

62N05 Reliability and life testing [See also 90B25.]

Barlow, Richard E. Geometry of the total time on test transform. **80j:62093**

Basu, A. P. (*with* El Mawaziny, A. H.) Estimates of reliability of k-out-of-m structures in the independent exponential case. **80a:62161**

Block, Henry W. (*with* Savits, Thomas H.) Systems with exponential life and IFRA component lives. **80h:62072**

Bury, K. V. System reliability estimation for the exponential load-strength model. **80b:62111**

Čepurin, E. V. (*with* Fehrmann, P.) On inequalities for functionals of bivariate distributions with monotone failure rates. (German and Russian summaries) **80i:62084**

Dai, Shu Sen A simplified linear unbiased estimate for accelerated life testing under constant stress. (Chinese) **80d:62090**

Draper, Norman R. (*with* Guttman, Irwin) Bayesian analysis of reliability in multicomponent stress-strength models. **80d:62091**

Dyer, Danny (*with* Keating, Jerome P.) Pitman-closeness efficiency of the estimators of reliability with application to the exponential failure model. **80m:62097**

(*with* Keating, Jerome P.; Hensley, Onas L.) On the relative behavior of estimators of reliability/survivability. **80m:62098**

El Mawaziny, A. H. *See* **Basu, A. P., 80a:62161**

El-Newehi, Emad (*with* Proschan, Frank; Sethuraman, Jayaram) Multistate coherent systems. **80a:62162**

Fehrmann, P. *See* **Čepurin, E. V., 80i:62084**

Gerlach, B. ★Anpassungstests für Lebensdauerverteilungen. Konfidenzintervalle und Tests für die Verfügbarkeit reparierbarer Systeme. **80a:62163**

A characterization of availability with statistical applications. (German and Russian summaries) **80m:62099**

Guttman, Irwin *See* **Draper, Norman R., 80d:62091**

Hensley, Onas L. *See* **Dyer, Danny; et al., 80m:62098**

Kalbfleisch, John D. (*with* MacKay, R. J.) On constant-sum models for censored survival data. **80m:62100**

See also **Prentice, Ross L., 80j:62094**

Karapenev, Hristo K. Estimation of the reliability of a standby system with renewal and lag in the detection of failures. **80k:62103**

Keating, Jerome P. *See* **Dyer, Danny, 80m:62097** *and* **Dyer, Danny; et al., 80m:62098**

Lisek, Bernd Comparability of special distributions. (German and Russian summaries) **80i:62085**

Litvak, E. I. *See* **Žuk, P. I., 80g:62076**

MacKay, R. J. *See* **Kalbfleisch, John D., 80m:62100**

Morrison, Donald G. On linearly increasing mean residual lifetimes. **80i:62086**

Orbetenov, A. Estimation of the deviation of a discrete distribution with increasing intensity from a geometric distribution. (Russian) **80g:62075**

Pereira, Basilio de Bragança Test for the discrimination between lognormal, gamma and Weibull distributions. (Portuguese) **80i:62087**

Peritz, Eric (*with* Ray, Rose) Some statistical methods for survival analysis with rare failures. **80a:62164**

Prentice, Ross L. (*with* Kalbfleisch, John D.) Hazard rate models with covariates. **80j:62094**

Proschan, Frank *See* **El-Newehi, Emad; et al., 80a:62162**

Ray, Rose *See* **Peritz, Eric, 80a:62164**

Savits, Thomas H. *See* **Block, Henry W., 80h:62072**

Sethuraman, Jayaram *See* **El-Newehi, Emad; et al., 80a:62162**

Shaked, Moshe Accelerated life testing for a class of linear hazard rate type distributions. **80c:62112**

Sherif, A. (*with* Tan, P.) On structural predictive distribution with type II progressively censored Weibull data. (German, French and Russian summaries) **80d:62092**

Sirvanci, Mete *See* **Yang, Grace L., 80k:62105**

Tan, P. *See* **Sherif, A., 80d:62092**

Tukačinski, L. I. An estimate of the probability of failure of an element, based on test results of a series-connected system. **80k:62104**

Williams, James S. Efficient analysis of Weibull survival data from experiments on heterogeneous patient populations. (French summary) **80f:62090**

Yang, Grace L. (*with* Sirvanci, Mete) Corrigenda: "Estimation of a time-truncated exponential parameter used in life testing" [J. Amer. Statist. Assoc. **72** (1977), no. 358, 444–447; MR **56** #4095]. **80k:62105**

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Aalen, Odd O. (*with* Hoem, Jan M.) Random time changes for multivariate counting processes. **(80b:60071)**
Abouammoh, Abdulrahman M. *See* **Ahmad, Rashid, (80f:60017)**
Ahmad, Rashid (*with* Abouammoh, Abdulrahman M.) Pólya-type, Schur-concave and related probability distributions. **(80f:60017)**
Banerjee, Asit K. (*with* Bhattacharyya, G. K.) Bayesian results for the inverse Gaussian distribution with an application. **(80i:62024)**
Bhattacharyya, G. K. *See* **Banerjee, Asit K., (80i:62024)**
Birnbaum, Z. William ★On the mathematics of competing risks. **(80e:62019)**
Chhikara, R. S. *See* **Folks, J. L., (80g:62006)**
Dziubdziela, Wiesław (*with* Kopociński, Bolesław) Estimation of the reliability of systems. (Polish) **(80m:90055)**
(Easterling, R. G.) *See* **Lawless, J. F., (80c:62046)**
Elandt-Johnson, Regina C. Some properties of bivariate Gumbel type *A* distributions with proportional hazard rates. **(80i:62089)**
Esary, J. D. (*with* Marshall, Albert W.) Multivariate distributions with increasing hazard rate average. **(80g:62030)**
Fleming, Thomas R. Nonparametric estimation for nonhomogeneous Markov processes in the problem of competing risks. **(80f:62024a)**
Asymptotic distribution results in competing risks estimation. **(80f:62024b)**
Folks, J. L. (*with* Chhikara, R. S.) The inverse Gaussian distribution and its statistical application—a review. **(80g:62006)**
Gupta, Ramesh C. On the characterization of survival distributions in reliability by properties of their renewal densities. **(80m:62013)**
Härtler, Gisela Information in truncated exponential samples. **(80m:62004)**
Hoem, Jan M. *See* **Aalen, Odd O., (80b:60071)**
Isogai, Eiichi On sequential estimators for jumps and reliability. **(80j:62080)**
Jones, David (*with* Whitehead, John) Sequential forms of the log rank and modified Wilcoxon tests for censored data. **(80i:62069)**
Kalbfleisch, John D. Non-parametric Bayesian analysis of survival time data. **(80c:62062)**
Kase, Shigeo *See* **Tsujitani, Masaaki; et al., (80m:62033)**
Kay, Richard Some further asymptotic efficiency calculations for survival data regression models. **(80m:62035)**
Kistner, K.-P. (*with* Subramanian, Ramachandran) Regenerative Eigenschaften von Modellen der Zuverlässigkeitstheorie. **(80b:60117)**
Kopociński, Bolesław (*with* Przybysz, Halina) A remark on preventive replacement strategies. (Polish) **(80m:90056)**
See also **Dziubdziela, Wiesław, (80m:90055)**
Koul, Hira L. A class of tests for testing "new is better than used". (French summary) **(80m:62040)**
Testing for new is better than used in expectation. **(80a:62058)**
Lawless, J. F. Confidence interval estimation for the Weibull and extreme value distributions. **(80c:62046)**
Lu, K. S. (*with* Saeks, Richard) Failure prediction for an on-line maintenance system in a Poisson shock environment. **(80e:90050)**
Makino, Toji On the use of Pareto diagrams for representation of characteristics of some distributions. (Japanese. English summary) **(80k:62031)**
Marshall, Albert W. *See* **Esary, J. D., (80g:62030)**
van Montfort, Martin A. J. (*with* Otten, Albert) On testing a shape parameter in the presence of a location and a scale parameter. (German and Russian summaries) **(80a:62035)**
Muhitdinova, N. M. Standby with preventive maintenance and repair. (Russian) **(80e:60101)**
Ohta, Hiroshi *See* **Tsujitani, Masaaki; et al., (80m:62033)**
Otten, Albert *See* **van Montfort, Martin A. J., (80a:62035)**
Pavlov, I. V. Monotonic confidence limits in the class of distributions with increasing function of the failure rate. **(80d:62028)**
Przybysz, Halina *See* **Kopociński, Bolesław, (80m:90056)**
Puri, Prem S. On certain problems involving nonidentifiability of distributions arising in stochastic modeling. **(80j:60117)**
Ross, Sheldon M. Multivalued state component systems. **(80e:60100)**
Saeks, Richard *See* **Lu, K. S., (80e:90050)**
Shaked, Moshe Estimation of starshaped sequences of Poisson and normal means. **(80f:62034)**
An estimator for the generalized hazard rate function. **(80d:62033)**
Shapiro, C. P. (*with* Wardrop, Robert L.) The Bayes sequential procedure for estimating the arrival rate of a Poisson process. **(80g:62062)**
(Sirken, Monroe G.) *See* **Birnbaum, Z. William, (80e:62019)**
Subramanian, Ramachandran *See* **Kistner, K.-P., (80b:60117)**
Talley, H. Dennis A non-parametric test for composite hypotheses in survival analysis. **(80a:62031)**
Tsujitani, Masaaki (*with* Ohta, Hiroshi; Kase, Shigeo) A preliminary test of significance for the extreme-value distribution. **(80m:62033)**
Turnbull, Bruce W. (*with* Weiss, Lionel) A likelihood ratio statistic for testing goodness of fit with randomly censored data. (French summary) **(80a:62063)**
Wardrop, Robert L. *See* **Shapiro, C. P., (80g:62062)**
Weiss, Lionel *See* **Turnbull, Bruce W., (80a:62063)**
Whitehead, John *See* **Jones, David, (80i:62069)**
Zalcman, Marian Repairable cyclic systems with spares. (Polish. Russian and English summaries) **(80a:90075)**

62N10 Quality control [See also 90Bxx.]

Chang, B. C. A constrained Bayesian price adjusted single attribute sampling scheme. **80m:62101**
Fink, Raymond K. A recursive algorithm for a summed multinomial density function. **80a:62165**
Gao, Dong Sheng Acceptance probability for a repeated piecewise sampling plan. (Chinese) **80a:62166**
Huang, Chün Hsiung (*with* Yang, Mark C. K.) The generalization of the effect of correlated defective inspection scheme for process control. **80a:62167**
Lumel'skiĭ, Ja. P. *See* **Zarubina, M. M., 80a:62168**
Nakazawa, Akira The theory of sampling inspection by multivariables. I. (Japanese. English summary) **80c:62113**
Ohta, Hiroshi GERT analysis of chain sampling inspection plans. **80f:62091**
Rykova, L. V. Estimates of the cardinalities of classes of a set in the case of control of reliability with errors. **80k:62106**
Störmer, H. Über das Testen von Ausschussanteilen mit verallgemeinerten *t*-Tests. (English summary) **80b:62112**
Tal, Yung Chiu (*with* Zimmer, William J.) An optimality of Beattie's continuous sampling plan. **80h:62073**
Yang, Mark C. K. *See* **Huang, Chün Hsiung, 80a:62167**
Zakirov, Š. Quality control plans based on two quality levels. (Russian. Uzbek summary) **80f:62092a**
Quality control plans with two levels for attributes with continuous distribution. (Russian. Uzbek summary) **80f:62092b**
Zarubina, M. M. (*with* Lumel'skiĭ, Ja. P.) Estimation of the a priori distribution of the number of defective articles. **80a:62168**
Zimmer, William J. *See* **Tal, Yung Chiu, 80h:62073**

Secondary classifications:

Anderson, Robert F. (*with* Friedman, Avner) Multidimensional quality control problems and quasivariational inequalities. **(80f:93086a)**
(*with* Friedman, Avner) Quality control for Markov chains and free boundary problems. **(80f:93086b)**
Enis, Peter *See* **Pfeifer, Charles G., (80c:62038)**
Friedman, Avner Quality control and quasivariational inequalities. **(80j:49010)**
On the free boundary of a quasivariational inequality arising in a problem of quality control. **(80f:93086c)**
See also **Anderson, Robert F., (80f:93086a)** *and* **Anderson, Robert F., (80f:93086b)**
Kurano, Masami *See* **Sakamoto, Takeshi, (80c:90183)**
Pfeifer, Charles G. (*with* Enis, Peter) Dorfman-type group testing for a modified binomial model. **(80c:62038)**
Sakamoto, Takeshi (*with* Kurano, Masami) Stochastic game models for the determination of the optimal continuous sampling inspection plans. **(80c:90183)**
Samuels, S. M. The exact solution to the two-stage group-testing problem. **(80c:62039)**
Taylor, Howard M. The time to failure of fiber bundles subjected to random loads. **(80c:73054)**

62N99 None of the above, but in this section

Phoenix, S. Leigh The asymptotic distribution for the time to failure of a fiber bundle. **80c:62114**

62Pxx Applications [See also 82–XX, 90–XX, 92–XX.]

62P05 Actuarial mathematics

Bühlmann, Hans (*with* Gerber, Hans U.) General jump process and time change—or, how to define stochastic operational time. **80c:62115**
De Vylder, Fl. A class of very regular distribution functions and corresponding ruin probabilities. **80f:62093**
Eisenberg, Shlomo (*with* Kahane, Yehuda) An analytic approach to balance sheet optimization and leverage problems of a property-liability insurance company. **80d:62093**
Gerber, Hans U. *See* **Bühlmann, Hans, 80c:62115**
Heilmann, Wolf-Rüdiger A duality theory for stop-loss distributions. **80g:62077**
Kahane, Yehuda *See* **Eisenberg, Shlomo, 80d:62093**
Pratt, John W. Finding how many roots a polynomial has in (0, 1) or (0, ∞). **80i:62088**
Schoen, Robert Calculating increment-decrement life tables by estimating mean durations at transfer from observed rates. **80j:62095**
Sundt, Bjørn On choice of statistics in credibility estimation. **80j:62096**
A hierarchical credibility regression model. **80k:62107**
Venezia, Itzhak Optimal insurance premium rates when the distribution of claims is unknown. **80b:62074**
Vincke, Philippe Preferences representation in actuarial sciences. **80m:62102**
Zehnwirth, Benjamin Credibility and the Dirichlet process. **80j:62097**

Secondary classifications:

Birnbaum, Z. William ★On the mathematics of competing risks. **(80e:62019)**
Gould, Henry W. Estimation of actuarial functions arising in coal mine valuation. **(80b:90008)**
Hoem, Jan M. Demographic incidence rates. **(80b:92033)**
Janssen, Jacques The explicit results for semi-Markov models in risk theory and in queueing theory. **(80k:60107)**
Oechsli, Frank Wm. A general method for constructing increment-decrement life tables that agree with the data. **(80g:92026)**
Şahin, İzzet Moment inequalities for a class of stochastic systems. **(80c:60120)**
(Sirken, Monroe G.) *See* **Birnbaum, Z. William, (80e:62019)**

62P10 Biometrics

Drane, J. Wanzer (*with* Owen, Donald B.; Seibert, Guy Burton, Jr.) The Burr distribution and quantal responses. **80b:62113**

Elandt-Johnson, Regina C. Some properties of bivariate Gumbel type *A* distributions with proportional hazard rates. **80f:62089**

Engen, Steinar ★Stochastic abundance models. **80b:62114**

Gupta, H. D. A probability model of effectiveness and acceptability of an IUCD programme. **80c:62069**

Koopmans, L. H. An application of a crossing probability bound to population biology. **80a:62169**

Morimune, Kimio Comparisons of normal and logistic models in the bivariate dichotomous analysis. **80k:62108**

Owen, Donald B. *See* **Drane, J. Wanzer; et al., 80b:62113**

Seibert, Guy Burton, Jr. *See* **Drane, J. Wanzer; et al., 80b:62113**

Thompson, Robin Corrections to: "Design of experiments to estimate heritability when observations are available on parents and offspring" (Biometrics **32** (1976), no. 2, 283–304). **80b:62115**

Secondary classifications:

Aalen, Odd O. Nonparametric inference for a family of counting processes. **(80a:62137)**

Bernardo Herranz, José-Miguel Bayesian methods and clinical diagnosis. (Spanish. English summary) **(80b:62012)**

Birnbaum, Z. William ★On the mathematics of competing risks. **(80e:62019)**

Butler, G. J. *See* **Sen, A. R.; et al., (80a:62041)**

Gates, D. J. (*with* Westcott, Mark) Zone of influence models for competition in plantations. **(80a:60134a)**
(*with* Westcott, Mark) Spatial competition in plantations. **(80a:60134b)**

Hutcheson, K. *See* **Lyons, N. I., (80e:62009)**

Kempthorne, Oscar Logical, epistemological and statistical aspects of nature-nurture data interpretation. **(80e:62007)**

Lyons, N. I. (*with* Hutcheson, K.) Distributional properties of Simpson's index of diversity. **(80e:62009)**

Patil, G. P. (*with* Rao, C. Radhakrishna) Weighted distributions and size-biased sampling with applications to wildlife populations and human families. (French summary) **(80e:62010)**

Puri, Prem S. On certain problems involving nonidentifiability of distributions arising in stochastic modeling. **(80j:60117)**

Rao, C. Radhakrishna *See* **Patil, G. P., (80e:62010)**

Sen, A. R. (*with* Smith, G. E. J.; Butler, G. J.) On a basic assumption in the line transect method. (German summary) **(80a:62041)**

(Sirken, Monroe G.) *See* **Birnbaum, Z. William, (80e:62019)**

Smith, G. E. J. *See* **Sen, A. R.; et al., (80a:62041)**

Soms, Andrew P. Simplified point and interval estimation for removal trapping. **(80m:62032)**

Thompson, Robin Corrections to: "The estimation of variance and covariance components with an application when records are subject to culling" (Biometrics **29** (1973), 527–550). **(80b:62081)**

Tolley, H. Dennis A non-parametric test for composite hypotheses in survival analysis. **(80a:62031)**

Vaeth, Michael A note on the behaviour of occurrence/exposure rates when the survival distribution is not exponential. **(80j:62024)**

Wani, Jagannath K. Measuring diversity in biological populations with logarithmic abundance distributions. (French summary) **(80m:62018)**

Wei, L. J. On the random allocation design for the control of selection bias in sequential experiments. **(80a:62124)**

Wemely, E. Ch. Partition of genetic variance for sub-populations. **(80b:92043)**

Westcott, Mark *See* **Gates, D. J., (80a:60134a)** *and* **Gates, D. J., (80a:60134b)**

62P15 Psychometrics

Batchelder, William H. (*with* Bershad, Neil J.) The statistical analysis of a Thurstonian model for rating chess players. **80b:62116**

ten Berge, Jos. M. F. (*with* Zegers, Frits E.) A series of lower bounds to the reliability of a test. **80f:62094**

Bershad, Neil J. *See* **Batchelder, William H., 80b:62116**

Duncan, George T. (*with* Milton, E. O.) Multiple-answer multiple-choice test items: responding and scoring through Bayes and minimax strategies. **80c:62116**

Formann, Anton K. The latent class analysis of polychotomous data. (German summary) **80j:62098**

Huynh, Huynh Reliability of multiple classifications. **80e:62070**

Kamenskii, V. S. A matrix approach to algorithms of nonmetric multidimensional scaling. **80m:62103**

Milton, E. O. *See* **Duncan, George T., 80c:62116**

Schelbiechner, Hartmann Specifically objective stochastic latency mechanisms. **80c:62117**

Schulman, Robert S. Ordinal data: an alternative distribution. **80f:62090**

Wilcox, Rand R. A lower bound to the probability of choosing the optimal passing score for a mastery test when there is an external criterion. **80k:62109**

Zegers, Frits E. *See* **ten Berge, Jos. M. F., 80f:62094**

Zimmerman, Donald W. A simple duality principle in test theory. **80m:62104**

Secondary classifications:

Borg, Ingwer *See* **Lingoes, James C., (80i:62004)**

Clarkson, Douglas B. Estimating the standard errors of rotated factor loadings by jackknifing. **(80k:62082)**

Field, Hartry A note on Jeffrey conditionalization. **(80f:62006)**

Itakura, Hidekiyo (*with* Yamauchi, Toshihiro) Multidimensional scaling techniques—a survey for multivariate analysis. (Japanese) **(80f:62060)**

de Leeuw, Jan (*with* Pruzansky, Sandra) A new computational method to fit the weighted Euclidean distance model. **(80i:62003)**

Lingoes, James C. (*with* Borg, Ingwer) A direct approach to individual differences scaling using increasingly complex transformations. **(80i:62004)**

Mardia, K. Some properties of classical multi-dimensional scaling. **(80c:62075)**

Pruzansky, Sandra *See* **de Leeuw, Jan, (80i:62003)**

Wilcox, Rand R. Comparing examinees to a control. **(80j:62027)**

Yamauchi, Toshihiro *See* **Itakura, Hidekiyo, (80f:62060)**

62P20 Econometrics [See also 90Axx.]

Amemiya, Takeshi The estimation of a simultaneous-equation tobit model. **80g:62078**

(Belsley, David A.) *See* **Zellner, Arnold, 80m:62108**

Brissimis, Sophocles N. *See* **Gill, Leonard, 80m:62105**

(Christ, Carl F.) *See* **Zellner, Arnold, 80m:62108**

Corradi, Corrado (*with* Stefanini, Luciano) Using the mixed linear-nonlinear approach for the solution of nonlinear estimation problems arising in applied econometrics. (Italian and French summaries) **80k:62110**

Dhrymes, Phoebus J. ★Introductory econometrics. **80f:62091a**
★Mathematics for econometrics. **80f:62091b**

Doran, H. E. (*with* Griffiths, W. E.) Inconsistency of the OLS estimator of the partial adjustment—adaptive expectations model. **80g:62079**

Fisher, Walter D. A note on aggregation and disaggregation. **80j:62099**

Geweke, John Testing the exogeneity specification in the complete dynamic simultaneous equation model. **80g:62080**

Gill, Leonard (*with* Brissimis, Sophocles N.) Polynomial operators and the asymptotic distribution of dynamic multipliers. **80m:62105**

Gourieroux, Christian (*with* Laffont, Jean-Jacques; Monfort, Alain) Disequilibrium econometrics in simultaneous equations systems. **80k:62111**

Griffiths, W. E. *See* **Doran, H. E., 80g:62079**

Hamada, Takao *See* **Kawamura, Ryohkichi; et al., 80g:62081**

Hsiao, Cheng Measurement error in a dynamic simultaneous equations model with stationary disturbances. **80h:62075**

Kapteyn, Arie *See* **Wansbeek, Tom J., 80b:62118**

Kawamura, Ryohkichi (*with* Matsuyama, Keisuke; Hamada, Takao) On the alternation of explanatory variables in the single equation econometric model. (Japanese. English summary) **80g:62081**
(*with* Matsuyama, Keisuke; Takahashi, Jun-ichi) On multicollinearity. **80i:62092**

Kinal, Terrence W. The existence of moments of *k*-class estimators. **80m:62106**

Kohn, R. On the relative efficiency of two methods of estimating a dynamic simultaneous equations model. **80j:62100**

(Kuh, Edwin) *See* **Zellner, Arnold, 80m:62108**

Laffont, Jean-Jacques *See* **Gourieroux, Christian; et al., 80k:62111**

Lahiri, Kajal (*with* Schmidt, Peter) On the estimation of triangular structural systems. **80g:62082**

Lee, Lung Fei Identification and estimation in binary choice models with limited (censored) dependent variables. **80k:62112**

Lin, Winston T. Factor-analysis estimation of simultaneity-error models. **80c:62118**

Mallela, Parthasaradhi (*with* Rao, Akundi S.) Necessary and sufficient conditions for inadmissibility of transformations in time. **80i:62093**

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Rödel, Egmar *See* **Toutenburg, Helge, 80e:62073**

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Keenan, John The estimation of partial adjustment models with rational expectations. **(80b:90053)**
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Majumdar, Mukul K. *See* **Föllmer, Hans, (80a:90035)**
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Ullah, Aman (*with* Ullah, Shobha) Double k-class estimators of coefficients in linear regression. **(80e:62048)**
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Bayesian methods *See* **New developments in the applications of Bayesian methods, (80a:62006)**
Conference:
European, New Developments in the Applications of Bayesian Methods *See* **New developments in the applications of Bayesian methods, (80a:62006)**
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Mardia, K. (*with* Zemroch, P. J.) ★Tables of the F- and related distributions with algorithms. **80e:62076**
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65-XX NUMERICAL ANALYSIS

65-01 Elementary exposition, textbooks

Ansorge, Rainer ★Differenzenapproximationen partieller Anfangswertaufgaben. **80f:65001**
Atkinson, Kendall E. ★An introduction to numerical analysis. **80a:65001**
(Bauer, F. L.) *See* **Stoer, J.; et al., 80a:65005**
Bohte, Zvonimir ★Numerične metode. (Slovenian) [Numerical methods] **80a:65002**
Bulirsch, R. *See* **Stoer, J., 80a:65005**
Černov, B. N. *See* **Cvicinskiĭ, I. V., 80k:65002**
Cheung, Y. K. (*with* Yeo, M. F.) ★A practical introduction to finite element analysis. **80k:65001**
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Daniels, Richard W. ★An introduction to numerical methods and optimization techniques. **80c:65001**
(Ebert, J.) *See* **Werner, Helmut; et al., 80a:65008**
Fried, Isaac ★Numerical solution of differential equations. **80d:65001**
Gerald, Curtis F. ★Applied numerical analysis. **80g:65001**
Hämmerlin, Günther ★Numerische Mathematik. I. **80a:65003**
Hosking, R. J. (*with* Joyce, D. C.; Turner, J. C.) ★First steps in numerical analysis. **80a:65004**
Ixaru, Liviu Gr. ★Metode numerice pentru ecuatii diferneţiale cu aplicaţii. (Romanian) [Numerical methods for differential equations with applications] **80c:65002**
Joyce, D. C. *See* **Hosking, R. J.; et al., 80a:65004**
Kalitkin, N. N. ★Численные методы. (Russian) [Numerical methods] **80b:65001**
Marcowitz, Ulrich *See* **Meis, Theodor, 80g:65003**
Meinardus, Günter (*with* Merz, Gerhard) ★Praktische Mathematik. I. **80g:65002**
Meis, Theodor (*with* Marcowitz, Ulrich) ★Numerische Behandlung partieller Differentialgleichungen. **80g:65003**
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(Samarskiĭ, A. A.) *See* **Kalitkin, N. N., 80b:65001**
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Smith, W. Allen ★Elementary numerical analysis. **80d:65002**
Stoer, J. (*with* Bulirsch, R.) ★Einführung in die numerische Mathematik. II. **80a:65005**
Szidarovszky, Ferenc (*with* Yakowitz, Sidney) ★Principles and procedures of numerical analysis. **80b:65002**
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Yeo, M. F. *See* **Cheung, Y. K., 80k:65001**

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(Žitomirskiĭ, V.) *See* **Pšeničnyĭ, B. N.; et al., (80g:90001)**

65–02 Advanced exposition (research surveys, monographs, etc.)

(Andersen, R. S.) *See* **Mihlin, S. G., 80j:65002**
Arminjon, Paul ★Analyse numérique matricielle. **80i:65001**
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(Demidov, G. V.) *See* **Štetter, H., (80a:65143)**
Gourgeon, Hervé ★Étude numérique de quelques problèmes non linéaires apparaissant en physique des plasmas. **(80h:82028)**
(Il'in, V. P.) *See* **Štetter, H., (80a:65143)**
Killeen, John Numerical methods in fusion research. **(80f:76045)**
(Kuznecov, Ju. I.) *See* **Štetter, H., (80a:65143)**
(Marčuk, G. I.) *See* **Štetter, H., (80a:65143)**
Oliger, Joseph Methods for time dependent partial differential equations. **(80d:65136)**
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Ryžov, O. S. Numerical methods in the dynamics of rarefied gases which have been developed and used at the Computing Center of the Academy of Sciences of the USSR. (Russian) **(80b:76030)**
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Starostenko, V. I. ★Устойчивые численные методы в задачах гравиметрии. (Russian) [Stable numerical methods in gravimetry problems] **(80d:86007)**
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Ženíšek, Alexander Approximation in the finite element method. II. **(80i:65127b)**
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65–03 Historical (must also be assigned at least one classification number from Section 01)

Secondary classifications:

Bogdanov, Ju. S. *See* **Erugin, N. P.; et al., (80c:01013)**
Erugin, N. P. (*with* Bogdanov, Ju. S.; Vuvunikjan, Ju. M.; Ivanov, E. A.; Krylov, V. I.; Kudrjavcev, L. D.; Radyno, Ja. V.; Uspenskiĭ, S. V.) Sergeĭ L'vovič Sobolev (on the occasion of his seventieth birthday). (Russian) **(80c:01013)**
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Krylov, V. I. *See* **Erugin, N. P.; et al., (80c:01013)**
Kudrjavcev, L. D. *See* **Erugin, N. P.; et al., (80c:01013)**
Radyno, Ja. V. *See* **Erugin, N. P.; et al., (80c:01013)**
(Sobolev, S. L.) *See* **Erugin, N. P.; et al., (80c:01013)**
Uspenskiĭ, S. V. *See* **Erugin, N. P.; et al., (80c:01013)**
Vuvunikjan, Ju. M. *See* **Erugin, N. P.; et al., (80c:01013)**
Biography:
Sobolev, S. L *See* **Erugin, N. P.; et al., (80c:01013)**
Birthday:
Sobolev, S. L. *See* **Erugin, N. P.; et al., (80c:01013)**

65–04 Explicit machine computation and programs (not the theory of computation or programming)

Barneveld Binkhuysen, C. *See* **Polak, S. J.; et al., 80a:65009**
Barton, D. Expansions in power series by computer. **80d:65005**
de Boor, Carl Efficient computer manipulation of tensor products. **80d:65006a**
Corrigenda: "Efficient computer manipulation of tensor products" (ACM Trans. Math. Software **5** (1979), no. 2, 173–182). **80d:65006b**
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Einarsson, Bo Bibliography on the evaluation of numerical software. **80e:65001**
Geddes, K. O. Symbolic computation of Padé approximants. **80c:65005**
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Perronnet, A. The club MODULEF. **80e:65003**
Polak, S. J. (*with* Schrooten, J.; Barneveld Binkhuysen, C.) TEDDY2, a program package for parabolic composite region problems. **80a:65009**
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Schomberg, Hermann Parallel computers and parallel numerical methods. **80a:65010**
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Shampine, Lawrence F. Solving ODE's with discrete data in SPEAKEASY. **80c:65006**
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Evaluation of numerical software *See* **Einarsson, Bo, 80e:65001**

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Cheng, Sin I Errors in finite difference solutions of Navier-Stokes equations. **(80h:76032)**
Deprit, André (*with* Schmidt, Dieter S.) Exact coefficients of the limit cycle in van der Pol's equation. **(80e:65084)**
Di Carlo, A. (*with* Piva, R.; Guj, G.) A study on curvilinear coordinates and macro-elements for multiply connected flow fields. **(80h:76012)**
Feldman, Arnold *See* **Jones, Bush; et al., (80d:65052)**
Gregory, Robert T. (*with* Karney, David L.) ★A collection of matrices for testing computational algorithms. **(80a:65089)**
Guj, G. *See* **Di Carlo, A.; et al., (80h:76012)**
Gustavson, Fred G. Two fast algorithms for sparse matrices: multiplication and permuted transposition. **(80a:65086)**
(Jacobs, David A. H.) *See* **Numerical software—needs and availability, (80f:68009)**
Jones, Bush (*with* Waller, W. G.; Feldman, Arnold) Root isolation using function values. **(80d:65052)**
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Kuck, D. J. *See* **Chen, S. C.; et al., (80a:65065)**
Kynn, Kern O. (*with* Norsworthy, J. R.; Okamoto, Tatsuo) Alternative computing formulas for the generalized inverse and the evaluation of their performances. **(80e:65049)**
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Piva, R. *See* **Di Carlo, A.; et al., (80h:76012)**
Rheinboldt, Werner C. *See* **Zave, Pamela, (80c:65213)**
Rice, John R. *See* **Casaletto, J. J., (80c:65031)**
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Tret'jakov, S. I. Algorithms of specialized processes operation for the solution of systems of equations. (Russian. English summary) **(80c:65074)**
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Zave, Pamela (*with* Rheinboldt, Werner C.) Design of an adaptive, parallel finite-element system. **(80c:65213)**
Algorithms for numerical computations and computers ★Algorithms for numerical computations and computers. (Japanese) **(80f:65003)**
Brighton *See* **Numerical software—needs and availability, (80f:68009)**
Conference:
Numerical Software—Needs and Availability *See* **Numerical software—needs and availability, (80f:68009)**
Kyoto *See* **Algorithms for numerical computations and computers, (80f:65003)**
Numerical software—needs and availability ★Numerical software—needs and availability. **(80f:68009)**
Symposium:
Algorithms for Numerical Computations and Computers *See* **Algorithms for numerical computations and computers, (80f:65003)**

65–06 Proceedings, conferences, etc.

(Alarcón, E.) *See* **Applied numerical modelling, 80m:65002**
(Albrecht, J.) *See* **Numerische Behandlung von Eigenwertaufgaben, 80i:65002**
(Ansorge, Rainer) *See* **Numerical treatment of differential equations in applications, 80a:65014** *and* **Numerical mathematics, 80m:65003**
(de Boor, Carl) *See* **Recent advances in numerical analysis, 80a:65016**
(Brebbia, Carlos Alberto) *See* **Applied numerical modelling, 80m:65001** *and* **Applied numerical modelling, 80m:65002**
(Čekalin, A. N.) *See* **Application of computers to the solution of problems in mathematical physics and automatic control systems, 80e:65004**
(Collatz, Lothar) *See* **Numerische Methoden der Approximationstheorie, 80a:65015; Numerische Behandlung von Eigenwertaufgaben, 80i:65002** *and* **Numerical mathematics, 80m:65003**
(Dmitriev, V. I.) *See* **Numerical analysis, 80k:65007**
(Ermolin, E. V.) *See* **Application of computers to the solution of problems in mathematical physics and automatic control systems, 80e:65004**
(Forster, Walter) *See* **Numerical solution of highly nonlinear problems, 80k:65010**
(Glashoff, Klaus) *See* **Numerical mathematics, 80m:65003**
(Glowinski, Roland) *See* **Computing methods in applied sciences and engineering, 80d:65010a** *and* **Applied sciences, 80d:65010b**
(Golub, Gene H.) *See* **Recent advances in numerical analysis, 80a:65016** *and* **Numerical analysis, 80c:65007**
(Hemker, P. W.) *See* **Numerical analysis of singular perturbation problems, 80j:65084**
(Hovanskiĭ, G. S.) *See* **Nomography collection, 80e:65005**
(Kublanovskaja, V. N.) *See* **Numerical methods and questions in the organization of calculations, 80a:65013** *and* **Numerical methods and questions in the organization of calculations, 80k:65009**

(Kuhnert, Frieder) *See* Mathematical models and numerical methods, 80a:65012
(Kupcov, N. P.) *See* Numerical methods and programming, 80d:65011
(Kuznecov, N. N.) *See* Mathematical models and numerical methods, 80a:65012
(Lions, Jacques-Louis) *See* Étude numérique des grands systèmes, 80a:65011; Computing methods in applied sciences and engineering, 80d:65010a; Applied sciences, 80d:65010b *and* Numerical methods in mathematical physics, geophysics and optimal control, 80e:65006
(Marčuk, G. I.) *See* Étude numérique des grands systèmes, 80a:65011; Numerical methods in mathematical physics, geophysics and optimal control, 80e:65006 *and* Computational methods in linear algebra, 80j:65003
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(Grinberg, È. Ja.) *See* **Mathematical modeling, (80d:94027)**
(Holt, Maurice) *See* **Conference: Numerical Methods in Fluid Dynamics, (80g:76002)**
(Rusanov, V. V.) *See* **Conference: Numerical Methods in Fluid Dynamics, (80g:76002)**
(Smolderen, J. J.) *See* **Numerical methods in fluid dynamics, (80e:76002)**
(Wirz, Hans Jochen) *See* **Numerical methods in fluid dynamics, (80e:76002)**
(Waytack, L.) *See* **Padé approximation and its applications, (80m:41001)**
Antwerp *See* **Padé approximation and its applications, (80m:41001)**
Conference:
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Fluid dynamics *See* **Numerical methods in fluid dynamics, (80e:76002)** *and* **Conference: Numerical Methods in Fluid Dynamics, (80g:76002)**
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Mathematical modeling ★Математическое моделирование. (Russian) [Mathematical modeling] **(80d:94027)**
Numerical methods in fluid dynamics ★Numerical methods in fluid dynamics. **(80e:76002)**
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65A05 Tables

Conde, S. (*with* Kalla, S. L.) A table associated with an integral transform occurring in the theory of diffraction. (Spanish summary) **80c:65009**
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Ling, Chih Bing Further evaluation of Howland integrals. **80f:65004**
Lomkaci, C. D. ★Нули присоединенной функции Лежандра $P_n^m(\cos\theta)$ относительно параметра n. (Russian) [Zeros of the associated Legendre function $P_n^m(\cos\theta)$ with respect to the parameter n] **80a:65017**

Secondary classifications:

Adel Sharaf, Mohamed General integral transform of the exponential integrals. **(80j:33002)**
te Riele, H. J. J. ★Tables of the first 15000 zeros of the Riemann zeta function to 28 significant digits, and related quantities. **(80f:10050)**
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Zacker, I. J. The summation of series of hyperbolic functions. **(80b:33001)**

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65B05 Extrapolation to the limit, deferred corrections

Baron, W. Über eine neue Zerlegungsfolge bei der Richardson-Extrapolation. **80f:65003**
Brezinski, Claude ★Algorithmes d'accélération de la convergence. **80b:65004**
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King, Richard F. An extrapolation method of order four for linear sequences. **(80f:65051)**
Lyness, J. N. *See* **Monegato, G., (80c:65050)**
Monegato, G. (*with* Lyness, J. N.) On the numerical evaluation of a particular singular two-dimensional integral. **(80c:65050)**
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65B10 Summation of series

Bondarenko, V. F. (*with* Ivanov, E. A.; Molinskiĭ, A. V.) On the question of calculating series that are close to the Schlömilch series. (Russian. English summary) **80c:65010**
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65B15 Euler-Maclaurin formula

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65B20 Poisson formula, etc.

65B99 None of the above, but in this section

Delahaye, J. P. Algorithmes-questions et algorithmes d'extraction pour suites non-convergentes. (English summary) **80e:65008**
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65Cxx Numerical simulation {For theoretical aspects, see 68Jxx.}

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Cavers, J. K. On the fast Fourier transform inversion of probability generating functions. **(80g:65136)**

65C05 Monte Carlo methods

Androsenko, P. A. (*with* Efimenko, B. A.) Modification of the Monte Carlo method for the computation of local characteristics of radiation flux. (Russian) **80a:65019**

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Ito, Masahiro *See* **Tanaka, Yutaka; et al., 80b:65001**

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Sobol', I. M. ★Метод Монте-Карло. (Russian) [The Monte-Carlo method] **80g:65006**

See also **Petrov, Ju. A., 80d:65017**

Szidarovszky, Ferenc *See* **Yakowitz, Sidney; et al., 80b:65008**

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White, P. C. *See* **Petschek, A. G.; et al., (80d:82071)**

Whitlock, P. A. (*with* Kalos, M. H.) Monte Carlo calculation of the radial distribution function of quantum hard spheres at finite temperatures. **(80a:82016)**

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Winnik, Mitchell A. *See* **Fraser, Simon J., (80b:82057)**

Monte Carlo methods in statistical physics ★Monte Carlo methods in statistical physics. **(80j:82010)**

Statistical physics *See* **Monte Carlo methods in statistical physics, (80j:82010)**

65C10 Random number generation

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65D10 Smoothing, curve fitting

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Kumar, K. S. P. *See* **Chu, W. K., 80c:65032**

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Wixom, James A. Interpolation to networks of curves in E^3. **(80a:65026)**

65D15 Algorithms for functional approximation

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Witsch, Kristian Numerische Quadratur bei Projektionsverfahren. (English summary) **80a:65236**

Wynn, P. The calculus of finite differences over certain systems of numbers. **80e:65013**

Zavorin, A. N. The stable iterative realization of certain implicit integration methods. (Russian) **80c:65161**

65D32 Quadrature and cubature formulas

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Amos, Donald E. Evaluation of some cumulative distribution functions by numerical quadrature. **80g:65021**

Baratella, Paola Čebyšev quadrature formulas of semiclosed type. (Italian. English summary) **80e:65033**

An optimal extension of the Radau quadrature formula. (Italian. English summary) **80h:65012**

Besenghi, R. (*with* Seatzu, S.) Considerations about the estimation of the remainder for :quadrature and cubature formulas. (Italian. English summary) **80e:65034**

Bolkov, I. V. Application of quadrature formulas to the calculation of singular integrals. (Russian) **80l:65028**

Bourdeau, Marc (*with* Dubuc, Serge) Formules optimales de quadrature de fonctions concaves. **80a:65056**

Čabdarov, Š. M. (*with* Ščekoturova, L. A.) Construction and application of cubature formulas in poly-Gaussian models of random events. (Russian) **80f:65024**

Černicina, V. Ja. Existence of a domain that has the least number of nodes in a cubature formula of the fifth degree of precision. (Russian) **80c:65055**

Chan, Stevens T. *See* **Leone, John M., Jr.; et al., 80f:65025**

Derr, Leroy *See* **Sarafyan, Diran; et al., 80c:65063**

Dubuc, Serge *See* **Bourdeau, Marc, 80a:65056**

Džurakulov, R. On the construction of cubature formulas for singular integrals with a Cauchy-type kernel. (Russian) **80e:65035**

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Engels, H. (*with* Eckhardt, Ulrich) The determination of nodes and weights in Wilf quadrature formulas. (German summary) **80e:65036**

Ermakov, S. M. (*with* Vladimirova, L. V.) Numerical construction of cubature formulas. (Russian) **80c:65056**

Franke, Richard On the minimum number of points required by certain cubature formulas. **80g:65022**

Gânscă, Ioan Optimal cubature formulas of a nonrectangular domain. **80j:65017**

Gatteschi, L. (*with* Vinardi, G.) The degree of accuracy of quadrature formulas of Čebyšev type. (Italian. English summary) **80b:65029**

Gegel', G. N. A method of choosing the knots of a cubature formula from a hypersphere. (Russian) **80e:65037**

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Homentcovschi, Dorel Numerical quadrature methods of analytic functions. **80d:65036**

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Ismatullaev, G. P. Construction of cubature formulas for a hypersphere and the surface of a sphere. (Russian) **80d:65037**

Ivanov, K. G. New estimates of errors of quadrature formulae, formulae of numerical differentiation and interpolation. **80l:65029**

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Keast, P. Some fully symmetric quadrature formulae for product spaces. **80g:65023**

(*with* Lyness, J. N.) On the structure of fully symmetric multidimensional quadrature rules. **80e:65038**

Kiseleva, O. *See* **Kosjuk, S. D., 80k:65024**

Konjaev, S. I. Gaussian quadratures for the sphere that are invariant with respect to the icosahedral group with inversion. (Russian) **80g:65024**

Kosjuk, S. D. (*with* Kiseleva, O.) On the question of refinement of quadrature formulas. (Russian) **80k:65024**

Kuz'menkov, V. A. Gaussian cubature formulas and the finite moment problem. (Russian) **80c:65057**

Lebedev, V. I. Algorithms for determining parameters of a class of quadratic Gauss-type formulas. (Russian) **80c:65058**

Lee, Robert L. *See* **Leone, John M., Jr.; et al., 80f:65025**

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A quadrature formula that is optimal in the sense of the V-method. (Russian) **80k:65026**

Ljaščenko, M. Ja. (*with* Golovan', N. S.) The computation of approximate values of a primitive function with given parameters. (Russian. English summary) **80f:65026**

Lo Cascio, M. L. Construction of generalized cubature formulas of open type. (Italian) **80e:65039**

Lyness, J. N. Quadrature over a simplex. II. A representation for the error functional. **80b:65030**

(*with* Monegato, G.) Quadrature error functional expansions for the simplex when the integrand function has singularities at vertices. **80m:65017**

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Maksudov, T. S. Cubature formulas with multiple nodes for singular integrals with a Hilbert kernel. (Russian) **80f:65027**

Mastjanica, V. S. Application of parabolic splines to the approximate computation of a singular integral. (Russian. English summary) **80f:65028**

McGrath, Joseph F. Gaussian product-type quadratures. **80g:65025**

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Muratšaeva, È. D. A quadrature process for a singular integral along an interval of a straight line. (Russian) **80k:65027**

Mysovskih, I. P. Cubature formulas that are invariant with respect to groups of transformations. (Russian) **80h:65013**

A cubature formula for a simplex. (Russian) **80c:65059**

Noskov, M. V. Cubature formulas on developable surfaces. (Russian) **80e:65040**

Nutfullin, Š. N. Equally weighted quadratures with partially coinciding nodes. (Russian) **80c:65060**

Nutfullina, G. Š. Quadrature formulas of increased accuracy for the integration of Green-type functions. (Russian) **80k:65028**

Onegov, L. A. Some quadrature formulas for singular integrals. (Russian) **80b:65031**

Outlaw, Curtis *See* **Sarafyan, Diran; et al., 80c:65063**

Phillips, G. M. Seventh degree integration rules for the cube. **80d:65038**

Polovinkin, V. I. Convergence of cubature formulas with a boundary layer on concrete functions. (Russian) **80f:65029**

The minimum of norms of functionals of errors in cubature formulas with arbitrary nodes. (Russian) **80h:65014**

Ponomarenko, A. K. Cubature formulas for certain singular integrals. (Russian) **80a:65057**

Construction of cubature formulas for some double singular integrals. (Russian) **80f:65030**

Prößdorf, Siegfried (*with* Silbermann, Bernd) Gestörte Projektionsverfahren und einige ihrer Anwendungen. (English summary) **80e:65041**

Rasputin, G. G. Some cubature formulas for a triangle and a square. (Russian) **80c:65061**

Rodrigues, A. J. On the accuracy of quadrature Laplace transform inversion and the solution of state space equations. **80e:65042**

Roghi, Gino Some observations on the convergence of hyper-Gaussian quadrature formulas. (Italian. French summary) **80c:65062**

Šabozov, M. Error estimates of cubature formulas for some classes of functions of two variables. (Russian. Tajiki summary) **80h:65015**

Šadimetov, H. M. Weighted optimal quadratic formulas. (Russian) **80d:65039**

Salkauskas, K. Almost-interpolatory Chebyshev quadrature. II. **80h:65016**

Sarafyan, Diran (*with* Derr, Leroy; Outlaw, Curtis) Generalizations of the Euler-Maclaurin formula. **80c:65063**

Šarihodžaeva, F. Cubature formulas on the sphere of a five-dimensional space that are invariant in transformations of a group of a regular hexahedron. (Russian) **80c:65064**

Cubature formulas of 9th and 11th order of accuracy for the sphere of n-dimensional space. (Russian) **80g:65026**

Šaripov, T. H. Lattice and nonlattice cubature formulas over the space $L_2^{(m)}(T_n)$. (Russian) **80f:65031**

Ščekoturova, L. A. *See* **Čabdarov, Š. M., 80f:65024**

Schmid, Hans Joachim On cubature formulae with a minimum number of knots. **80a:65058**

Seatzu, S. An expression of the remainder, in a nonintegral form, in the quadrature formulas. (Italian. English summary) **80l:65030**

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Šelko, M. A. A cubature formula for a two-dimensional integral with Cauchy kernels. (Russian. English summary) **80c:65065**

Convergence of cubature processes for a two-dimensional singular integral. (Russian. English summary) **80g:65027**

Silbermann, Bernd *See* **Prößdorf, Siegfried, 80e:65041**

Silliman, Sherwood D. On complete semicardinal quadrature formulae. **80g:65028**

Sindermann, Peter ★Interpolation und Quadratur für Lebesgue-integrierbare Funktionen unter Verwendung von Intervallfunktionalen. **80j:65018**
Smith, H. V. The evaluation of the error term in some numerical quadrature formulae. **80c:65066**
Šokamolov, I. Approximate computation of iterated integrals that contain a Cauchy type integral or a singular integral of special type. (Russian. Tajiki summary) **80a:65059**
Soliev, Ja. Some cubature formulas for singular integrals. (Russian) **80b:65017**
Taylor, P. J. Truncation errors for Gregory quadrature rules. **80j:65019**
Tolev, B. D. (*with* Hristov, N. N.) Some cubature formulas for regular pentagons and octagons. (Bulgarian. Russian and French summaries) **80b:65032**
Vinardi, G. *See* **Gatteschi, L., 80b:65029**
Vladimirova, L. V. *See* **Ermakov, S. M., 80c:65056**
Weinberger, H. F. Some remarks on good, simple, and optimal quadrature formulas. **80b:65033**
Werschulz, Arthur G. Maximal order and order of information for numerical quadrature. **80f:65032**
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Zagirova, F. Ja. Some difference equations that arise in the theory of cubature formulas. (Russian) **80c:65068**

Secondary classifications:

Bao, Ming Tang Error estimates for natural cubic splines in design calculations for two-stage flow around the blades of a rotary compressor. (Chinese) **80h:76045**
Barrow, David L. On multiple node Gaussian quadrature formulae. **80j:41045**
The topological degree applied to some problems in approximation theory. **80f:41021**
Broad, John T. Gauss quadrature generated by diagonalization of H in finite L^2 bases. **80h:81033**
Coman, Gh. Minimal monosplines in L_2 and optimal cubature formulae. **80h:41003**
Dobrs, I. D. On optimal quadrature formulae in Lipschitz-classes. **80j:41046**
de Doncker, Elise New Euler-Maclaurin expansions and their application to quadrature over the s-dimensional simplex. **80d:65014**
Ghasă, Ioan Best quadrature formulas with relatively few terms. **80j:41047**
Girlovitš, J. (*with* Levin, M. I.) Extremal problems for cubature formulas. (Estonian and Russian summaries) **80a:41029**
Gladwin, Charles J. Quadrature rule methods for Volterra integral equations of the first kind. **80f:65144**
Levin, M. I. *See* **Girlovitš, J., 80a:41029**
Ljubolin, A. A. An estimate of the rate of convergence of difference-quadrature approximations of variational problems. (Russian) **80a:49017**
Potompa, H. Modifizierte Restgliedabschätzungen für Quadraturformeln. (English summary) **80d:41014**
Šabozov, M. An error estimate for cubature formulas that are exact for splines on some classes of two-variable functions. (Russian) **80k:41018**
Salihov, G. N. *See* **Žamalov, Z. Ž.; et al., 80m:41020**
Šaripov, T. H. *See* **Žamalov, Z. Ž.; et al., 80m:41020**
Secea, D. On approximate integration of first-order differential equations by spline functions. (Romanian. German summary) **80g:34009**
el Tom, M. E. A. On best cubature formulas and spline interpolation. **80e:41007**
Žamalov, Z. Ž. (*with* Salihov, G. N.; Šaripov, T. H.) Approximate integration of smooth functions. (Russian) **80m:41020**

65D99 None of the above, but in this section

Allgower, Eugene (*with* Georg, Kurt) Triangulations by reflections with applications to approximations. **80m:65018**
Bondarenko, B. A. Generalized hyperbolic and trigonometric functions and their applications to equations of mathematical physics. (Russian) **80b:65034**
Gautschi, Walter Questions of numerical conditions related to polynomials. **80b:65035**
The condition of polynomials in power form. **80f:65034**
Georg, Kurt *See* **Allgower, Eugene, 80m:65018**
Kalaba, Robert E. (*with* Zagustin, Elena A.; Meier, George) An initial value method for orthogonal polynomials. **80a:65060**
Meier, George *See* **Kalaba, Robert E.; et al., 80a:65060**
Mühlbach, Günter Estimates of Čebyšev-moduli and of generalized divided differences with applications to Lebesgue-functions of extrapolation operators. **80f:65033**
Nicolae, Dan Determining the stationary extremum of incompletely defined efficiency functions. (Romanian. English summary) **80f:65035**
Ševčenko, A. V. Practical methods for approximate calculations. (Russian. English summary) **80e:65043**
Shier, D. R. (*with* Witzgall, C. J.) Norm approximation problems and norm statistics. **80f:65036**
Witzgall, C. J. *See* **Shier, D. R., 80f:65036**
Zagustin, Elena A. *See* **Kalaba, Robert E.; et al., 80a:65060**

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Boulz, Peter Ein Beitrag zur Theorie des Entwurfs doppelt gekrümmter Flächen unter differentialgeometrischen und rechentechnischen Aspekten. **80e:53002**
Däubler, H.-G. *See* **Schönauer, W.; et al., 80a:76025**
Glotz, G. *See* **Schönauer, W.; et al., 80a:76025**
Grüning, J. *See* **Schönauer, W.; et al., 80a:76025**
Kregh, Fred T. Recurrence relations for computing with modified divided differences. **80f:65094**
Matsuda, Akira An algebraic addition-theorem for Weierstrass' elliptic function and nomograms. (Czech and Russian summaries) **80f:33004**
Niederreiter, Harald Existence of good lattice points in the sense of Hlawka. **80e:10039**
Preiss, K. Checking the topological consistency of a finite element mesh. **80f:65123**
Schönauer, W. (*with* Grüning, J.; Däubler, H.-G.; Glotz, G.) Streamline coordinates and similarity transformation for the 3-D boundary layer. **80a:76025**
Singh, Vimal A note on continued fraction inversion. **80e:93015**
Walker, J. D. A. The boundary layer due to rectilinear vortex. **80a:76020**
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Antwerp *See* **Padé approximation and its applications, 80m:41001**
Conference:
Padé Approximation and its Applications *See* **Padé approximation and its applications, 80m:41001**
Padé approximation and its applications ★Padé approximation and its applications. **80m:41001**

65E05 Numerical methods in complex analysis (potential theory, etc.) {For numerical methods in conformal mapping, see 30C30.}

Frank, Evelyn On the numerical solution of certain applied problems. **80a:65061a**
Correction to: "On the numerical solution of certain applied problems" (Z. Angew. Math. Mech. **58** (1978), no. 6, 101–102). **80a:65061b**
Geddes, K. O. Near-minimax polynomial approximation in an elliptical region. **80a:65062**
Henrici, Peter Fast Fourier methods in computational complex analysis. **80f:65031**
Hübner, Otto Zur Numerik der Theodorsenschen Integralgleichung in der konformen Abbildung. **80f:65037**
Sonnenschein, J. On δ-analytic functions and the numerical solution of the Dirichlet problem. **80f:65032**

Secondary classifications:

Atta, T. I. *See* **Bassali, W. A.; et al., (80j:73026)**
Bassali, W. A. (*with* Musa, F. A.; Atta, T. I.) Clamped and simply supported rhombic plates uniformly loaded over the entire plate or over a concentric circle. (Arabic summary) **(80j:73026)**
Binns, K. J. (*with* Rees, G. R.; Kahan, P.) The evaluation of improper integrals encountered in the use of conformal transformation. **(80c:65044)**
Elliott, S. W. A technique for approximate conformal mapping. **(80b:30007)**
On the approximate conformal mapping of multiply connected domains. **(80j:30011)**
Gervais, R. (*with* Rahman, Q. I.; Schmeisser, G.) Simultaneous interpolation and approximation by entire functions of exponential type. **(80c:65038)**
Grassmann, E. Numerical experiments with a method of successive approximation for conformal mapping. (German summary) **(80m:30008)**
Hummel, J. A. The b_1, b_2 coefficient body for Bieberbach-Eilenberg functions. **(80g:30014)**
Kahan, P. *See* **Binns, K. J.; et al., (80c:65044)**
Levin, D. (*with* Papamichael, N.; Sideridis, A.) The Bergman kernel method for the numerical conformal mapping of simply connected domains. **(80k:30008)**
Musa, F. A. *See* **Bassali, W. A.; et al., (80j:73026)**
Nicolaide, Andrei Conformal transformation using direct minimization methods. **(80b:30008)**
Papamichael, N. *See* **Levin, D.; et al., (80k:30008)**
Pascu, N. N. (*with* Podaru, V.; Rotaru, P.) Calculation of the alpha-starlike radius for starlike functions of order beta. (Romanian. German summary) **(80j:30022)**
Podaru, V. *See* **Pascu, N. N.; et al., (80j:30022)**
Rahman, Q. I. *See* **Gervais, R.; et al., (80c:65038)**
Rees, G. R. *See* **Binns, K. J.; et al., (80c:65044)**
Rotaru, P. *See* **Pascu, N. N.; et al., (80j:30022)**
Schmeisser, G. *See* **Gervais, R.; et al., (80c:65038)**
Sideridis, A. *See* **Levin, D.; et al., (80k:30008)**
Terent'ev, A. G. The nonlinear theory of cavitational flow. (Russian) **(80c:76010)**
Wegmann, R. Ein Iterationsverfahren zur konformen Abbildung. **(80g:30005)**

65Fxx Numerical linear algebra

Heller, Don A survey of parallel algorithms in numerical linear algebra. **80a:65063**
Moler, Cleve B. Three research problems in numerical linear algebra. **80d:65040**

Secondary classifications:

Arminjon, Paul ★Analyse numérique matricielle. **(80l:65001)**
(Marčuk, G. I.) *See* **Computational methods in linear algebra, (80j:65003)**
(Mercier, Bertrand) *See* **Arminjon, Paul, (80l:65001)**
Voevodin, V. V. ★Вычислительные основы линейной алгебры. (Russian) [Numerical foundations of linear algebra] **(80a:65007)**
Walt, R. ★The numerical solution of algebraic equations. **(80k:65004)**
All-Union Conference:
Computational Methods in Linear Algebra *See* **Computational methods in linear algebra, (80j:65003)**
Computational methods in linear algebra ★Вычислительные методы линейной алгебры. (Russian) [Computational methods in linear algebra] **(80j:65003)**
Linear algebra *See* **Computational methods in linear algebra, (80j:65003)**
Novosibirsk *See* **Computational methods in linear algebra, (80j:65003)**

65F05 Direct methods for linear systems and matrix inversion

Aberth, Oliver A method for exact computation with rational numbers. **80c:65069**
Babev, Dil. A. (*with* Mamedov, K. Š.) Aggregation of a class of systems of integer equations. (Russian) **80a:65064**
Balgovind, Ramesh *See* **Ghil, Michael, 80c:65071**
Chen, S. C. (*with* Kuck, D. J.; Sameh, Ahmed) Practical parallel band triangular system solvers. **80a:65065**

Dinkevič, S. Z. Explicit quasi-spectral decompositions of some types of matrices. (Russian) 80a:65066

Duff, I. S. (*with* Reid, J. K.; Munksgaard, Niels; Nielsen, Hans Bruun) Direct solution of sets of linear equations whose matrix is sparse, symmetric and indefinite. 80c:65070

Fage, D. M. (*with* Saĭdurov, V. V.) A direct method of solution of systems of equations with a block three-diagonal matrix. (Russian) 80m:65019

George, Alan (*with* Liu, Joseph W. H.) A fast implementation of the minimum degree algorithm using quotient graphs. 80i:65033

Ghil, Michael (*with* Balgovind, Ramesh) A fast Cauchy-Riemann solver. 80c:65071

Kailath, Thomas (*with* Kung, Sun Yuan; Morf, Martin) Displacement ranks of matrices and linear equations. 80k:65029

Karush, Jack I. *See* Rodrigue, Garry H.; et al., 80b:65040

Kátai, Imre (*with* Rahmy, E.) Inversion of block Toeplitz and Hankel matrices. 80m:65020

Kuck, D. J. *See* Chen, S. C.; et al., 80a:65065

Kung, Sun Yuan *See* Kailath, Thomas; et al., 80k:65029

Lipton, Richard J. (*with* Rose, Donald J.; Tarjan, Robert Endre) Generalized nested dissection. 80d:65041

Liu, Joseph W. H. *See* George, Alan, 80i:65033

Madsen, Niel K. *See* Rodrigue, Garry H.; et al., 80b:65040

Malina, Lubor Transfer methods for systems of linear algebraic equations with band matrices. (Russian) 80b:65036

General theory of direct methods for solving systems of equations with band matrices. (Czech and Russian summaries) 80d:65042

Mamedov, K. Š. *See* Babev, Dž. A., 80a:65064

McNamee, J. M. Some comments on D. R. Shier's paper: "Inverting sparse matrices by tree partitioning" (J. Res. Nat. Bur. Standards Sect. B 80B (1976), no. 2, 245–257). 80k:65037

Mack, Dereck S. On the inverses of some matrices differing slightly from a symmetric, five-band, Toeplitz form. 80h:65018

Meitus, V. Ju. (*with* Tančer, I. V.) Representation of a parallel algorithm of Stone in structural-algorithmic algebras. (Russian) 80g:65029

Mihlin, S. (*with* Vainikko, G.) The Fredholm resolvent and an inversion of matrices dependent on a parameter. (Russian. Estonian and English summaries) 80c:65072

Mikloško, František The recurrent calculation of the inverse of a special class of matrices. 80b:65038

Moldenhauer, Wolfgang (*with* Thielcke, Helmut) Zur Pivotisierung bei der Auflösung linearer Gleichungssysteme. 80k:65030

Morf, Martin *See* Kailath, Thomas; et al., 80k:65029

Munksgaard, Niels *See* Duff, I. S.; et al., 80c:65070

Nakamae, Eihachiro *See* Yamashita, Hideo, 80k:65031

Nielsen, Hans Bruun *See* Duff, I. S.; et al., 80c:65070

Rahmy, E. *See* Kátai, Imre, 80m:65020

Reid, J. K. *See* Duff, I. S.; et al., 80c:65070

Richter, Gerhard Verbesserung einer aus der Carlemanschen Ungleichung abgeleiteten Normabschätzung für die Inverse einer Matrix. 80b:65039

Rodrigue, Garry H. (*with* Madsen, Niel K.; Karush, Jack I.) Odd-even reduction for banded linear equations. 80b:65040

Rose, Donald J. *See* Lipton, Richard J.; et al., 80d:65041

Rudčenko, P. A. Solution of a system of linear algebraic equations. (Russian. English summary) 80c:65073

Saĭdurov, V. V. *See* Fage, D. M., 80m:65019

Sameh, Ahmed *See* Chen, S. C.; et al., 80a:65065

Savinov, G. V. Numerical stability of a block triangular decomposition for a class of linear systems. (Russian) 80f:65038

Sen, S. K. (*with* Shamim, A. A.) An integer arithmetic method to compute generalized matrix inverse and solve linear equations exactly. 80g:65030

Shamim, A. A. *See* Sen, S. K., 80g:65030

(Shier, D. R.) *See* McNamee, J. M., 80b:65037

Swartztrauber, Paul N. A parallel algorithm for solving general tridiagonal equations. 80b:65041

Tančer, I. V. *See* Meitus, V. Ju., 80g:65029

Tarjan, Robert Endre *See* Lipton, Richard J.; et al., 80d:65041

Thielcke, Helmut *See* Moldenhauer, Wolfgang, 80k:65030

Tret'jakov, S. I. Algorithms of specialized processes operation for the solution of systems of equations. (Russian. English summary) 80c:65074

Vainikko, G. *See* Mihlin, S., 80c:65072

Varah, James M. A practical examination of some numerical methods for linear discrete ill-posed problems. 80c:65075

Yamashita, Hideo (*with* Nakamae, Eihachiro) A pivot ordering algorithm aimed at minimizing computation time. 80k:65031

Zielinski, Adam On inversion of complex matrices. 80g:65031

Secondary classifications:

Babikov, G. V. Factorization of matrices over rings and division rings. (Russian) (80i:15013)

Barrodale, I. *See* Delves, L. M., (80i:65039)

Campbell, Stephen L. (*with* Meyer, C. D., Jr.) ★Generalized inverses of linear transformations. (80d:15003)

Chin, Francis Y. An $O(n)$ algorithm for determining a near-optimal computation order of matrix chain products. (80a:68037)

Cline, A. K. (*with* Moler, Cleve B.; Stewart, G. W.; Wilkinson, J. H.) An estimate for the condition number of a matrix. (80g:65048)

Delves, L. M. (*with* Barrodale, I.) A fast direct method for the least squares solution of slightly overdetermined sets of linear equations. (80i:65039)

Gilbert, J. D. *See* Wilker, E. A.; et al., (80f:15009)

Glencross, M. J. (*with* Wong, Edward T.; Planitz, M.) Three slants on the generalised inverse. (80j:15002)

Golub, Gene H. (*with* Van Loan, Charles) Unsymmetric positive definite linear systems. (80k:15016)

Howe, R. B. *See* Wilker, E. A.; et al., (80f:15009)

Ikebe, Yasuhiko *See* Yamamoto, Tetsuro, (80c:15003b)

Kumar, Alok (*with* Singh, Vimal) Inversion of the matrix continued fraction. (80e:93014)

Majcher, G. (*with* Styrylska, T.) Multistage equalization of direct conditioned observations. (Polish) (80d:15002)

Mejras, Zbigniew An algorithm for the solution of a linear system of algebraic equations arising in the mesh method for the Poisson equation. (Polish) (80f:65107)

Meyer, C. D., Jr. *See* Campbell, Stephen L., (80d:15003)

Moler, Cleve B. *See* Cline, A. K.; et al., (80g:65048)

Planitz, M. *See* Glencross, M. J.; et al., (80j:15002)

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On a new class of elementary matrices. **80m:65033**
(*with* Wenzel, H. J.) A quadratically convergent Jacobi-like method for real matrices with complex eigenvalues. **80m:65034**
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Goerisch, Friedrich Über Quotienten-Einschliessungssätze bei allgemeinen Eigenwertaufgaben. (English summary) **80j:65022**
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Troesch, B. A. *See* **Searcy, J. L., 80f:15019**
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Wilkinson, J. H. *See* **Peters, G., 80f:65040**

65F20 Overdetermined systems, pseudoinverses

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Delves, L. M. (*with* Barrodale, I.) A fast direct method for the least squares solution of slightly overdetermined sets of linear equations. **80f:65039**
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See also **Molčanov, Ĭ. M.; et al., 80m:65036**
Kovanic, Pavel On the pseudoinverse of a sum of symmetric matrices with applications to estimation. **80m:65035**
Kynn, Kern O. (*with* Norsworthy, J. R.; Okamoto, Tatsuo) Alternative computing formulas for the generalized inverse and the evaluation of their performances. **80e:65049**
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Lebedev, D. C. (*with* Truškin, A. V.) Solution of a system of linear equations with an incomplete cyclic matrix by means of a discrete Fourier transform. (Russian) **80f:65040**
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Maess, Gerhard A projection method solving general linear algebraic equations. **80k:65040**
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65F25 Orthogonalization

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65F30 Other matrix algorithms

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Liu, Joseph W. H. *See* **George, Alan, 80a:65085**
Malina, Labor On generalized methods of the transfer of conditions. (Czech and Russian summaries) **80f:65048**
McIntyre, David R. A linear time and space ordering algorithm for irregular shaped finite element systems. **80h:65025**
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Pasedach, K. On the reduction of storage space and processing time for matrices. **80a:65088**
Pesamosca, G. Calculation of functions of real matrices by means of constituent matrices. (Italian. English summary) **80c:65097**
Poole, W. G., Jr. *See* **George, Alan; et al., 80a:65084**
Romanovs'kiĭ, O. O. A method for the inversion of a high order polynomial matrix. (Russian. English summary) **80g:65046**
(Rózsa, P.) *See* **Kao, Y. S.; et al., 80a:65087**
Schmitt, B. A. Eine explizite Darstellung der Funktion einer Dreiecksmatrix. **80g:65047**
(Sinha, N. K.) *See* **Kao, Y. S.; et al., 80a:65087**
Stewart, G. W. *See* **Bavely, Connice A., 80c:65094**
Taniguchi, Takeo A graph-theoretic study of the minimum fill-in problem for sparse matrix method. **80c:65098**
Tchuente, Maurice Parallel calculation of a linear mapping on a computer network. **80h:65026**
Todorov, Todor Stefanov An algorithm describing all pairs (L, R) of factors in the decomposition $P=LR$ for a class of infinite numerical matrices. (Bulgarian. Russian and English summaries) **80c:65099**
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Secondary classifications:

Ahmed, N. (*with* Chen, M. C.) On a matrix factorization algorithm. **(80f:68039)**
Bellman, Richard E. Selective computation. II. The positive definite square root of a positive definite matrix. **(80c:15014)**
Chen, M. C. *See* **Ahmed, N., (80f:68039)**
Fischer, Patrick C. (*with* Probert, Robert L.) Storage reorganization techniques for matrix computation in a paging environment. **(80e:68055)**
Gill, Philip E. (*with* Murray, Walter) Algorithms for the solution of the nonlinear least-squares problem. **(80a:65039)**
Hackl, J. Zerlegung positiv semidefiniter Matrizen und Anwendungen in der Optimierung. **(80b:15019)**
Hoskins, W. D. (*with* Walton, D. J.) The numerical solution of the time-dependent matrix equation $A(t)V(t)+WA(t)=G(t)$. **(80a:93125)**
Huang, C. P. An efficient algorithm for computing powers of triangular matrices. **(80m:68039)**
Lenin, A. I. (*with* Makarov, O. M.) Recurrence algorithms for the computation of Hankel forms and the inversion of a dyadic matrix and a cyclic matrix. (Russian) **(80d:68040)**
Makarov, O. M. *See* **Lenin, A. I., (80d:68040)**
Murray, Walter *See* **Gill, Philip E., (80a:65039)**
Pan, V. Ya. Strassen's algorithm is not optimal. Trilinear technique of aggregating, uniting and canceling for constructing fast algorithms for matrix operations. **(80e:68118)**
Probert, Robert L. *See* **Fischer, Patrick C., (80e:68055)**
Shapiro, H. Simultaneous block triangularization and block diagonalization of sets of matrices. **(80e:15009)**
Stewart, G. W. The effects of rounding error on an algorithm for downdating a Cholesky factorization. **(80i:65046)**
Walton, D. J. *See* **Hoskins, W. D., (80a:93125)**
Woods, John E. A note on Hicksian stability. **(80j:90039)**

65F35 Matrix norms, conditioning, scaling [See also 15A12, 15A60.]

Asano, Chooichiro *See* **Tanaka, Yutaka, 80i:65043a; Tanaka, Yutaka, 80i:65043b** *and* **Tanaka, Yutaka; et al., 80i:65043c**
Berg, Lothar Zur stabilen Auflösung grosser linearer Gleichungssysteme. **80m:65038**
Berger, Marc A. (*with* Kelley, C. T.) A variational equivalent to diagonal scaling. **80m:65039**
Cline, A. K. (*with* Moler, Cleve B.; Stewart, G. W.; Wilkinson, J. H.) An estimate for the condition number of a matrix. **80g:65048**
Demko, Stephen On bounding $\|A^{-1}\|_\infty$ for banded A. **80g:65049**
Enright, W. H. (*with* Serbin, Steven M.) A note on the efficient solution of matrix pencil systems. **80d:65049**
Ikramov, H. D. The condition of intermediate matrices for Gauss, Jordan and optimal elimination methods. (Russian) **80c:65100**
Kelley, C. T. *See* **Berger, Marc A., 80m:65039**
Kevorkian, Aram K. The principal maxmin matrix transversal strategy. **80f:65049**
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Ljaško, Ĭ. Ĭ. (*with* Kudrinskiĭ, V. Ju.; Ostapčuk, V. S.) The solution of ill-conditioned systems of equations with positive definite matrices. (Russian) **80b:65052**
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Nicholson, David W. On preconditioning a nonsingular matrix. **80b:65053**
On the optimal preconditioning of nonsingular matrices. **80m:65040**
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Serbin, Steven M. *See* **Enright, W. H., 80d:65049**
Skeel, Robert D. Scaling for numerical stability in Gaussian elimination. **80e:65051**
Stewart, G. W. *See* **Cline, A. K.; et al., 80g:65048**
Tanaka, Yutaka (*with* Asano, Chooichiro) A generalized method of optimal scaling for partially ordered categories. **80i:65043a**
(*with* Asano, Chooichiro) On some basic properties of optimal scaling for ordered categories. **80i:65043b**
(*with* Asano, Chooichiro; Kubota, Nobuko) A generalized method of optimal scaling for multiple responses with ordered categories. **80i:65043c**
Wilkinson, J. H. *See* **Cline, A. K.; et al., 80g:65048**

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Caponenko, Ju. L. A method for the solution of ill-posed linear algebraic systems. (Russian) **(80f:65045)**
Hanson, Richard J. (*with* Wisniewski, John A.) A mathematical programming updating method using modified Givens transformations and applied to LP problems. **(80c:90096)**
Paige, C. C. Computer solution and perturbation analysis of generalized linear least squares problems. **(80b:65013)**
Suzuki, Hiroshi A new approach to the reduction of matrices to Jordan normal form. **(80a:15005)**
Varah, James M. A practical examination of some numerical methods for linear discrete ill-posed problems. **(80c:65075)**
Vitória, José Matricial norms and the difference between the zeros of determinants with polynomial elements. **(80k:15014)**
Wisniewski, John A. *See* **Hanson, Richard J., (80c:90096)**

65F40 Determinants

65F99 None of the above, but in this section

Birkhoff, Garrett (*with* Gulati, Surender) Isotropic distributions of test matrices. (German summary) **80e:65052**
Cope, J. E. (*with* Rust, B. W.) Bounds on solutions of linear systems with inaccurate data. **80m:65041**
Gregory, Robert T. (*with* Karney, David L.) ★A collection of matrices for testing computational algorithms. **80a:65089**
Gulati, Surender *See* **Birkhoff, Garrett, 80e:65052**
Karney, David L. *See* **Gregory, Robert T., 80a:65089**
Rust, B. W. *See* **Cope, J. E., 80m:65041**
Ullrich, Christian Blockiterationsverfahren bei schwach zyklischen Abbildungen. **80h:65027**

Secondary classifications:

Geddes, K. O. Symbolic computation of Padé approximants. **(80c:65005)**
Gustafsson, Ivar On modified incomplete Cholesky factorization methods for the solution of problems with mixed boundary conditions and problems with discontinuous material coefficients. **(80h:65092)**
Kappe, Luise-Charlotte Groups with a cyclic term in the lower central series. **(80c:20053)**
Makarov, O. M. Using duality to compute the pair of matrix products QY and Y^TQ over a commutative ring. **(80j:68025)**
Marcus, Marvin (*with* Shure, B. N.) The numerical range of certain 0, 1-matrices. **(80c:15015)**
Nussbaumer, Henri J. Fast polynomial transform algorithms for digital convolution. **(80m:94004)**
Ševčenko, V. N. *See* **Veselov, S. I., (80a:90101)**
Shure, B. N. *See* **Marcus, Marvin, (80c:15015)**
Veselov, S. I. (*with* Ševčenko, V. N.) The exponential growth of coefficients of the aggregating equation. (Russian. English summary) **(80a:90101)**

65Gxx Error analysis

Secondary classifications:

Kornerup, Peter (*with* Matula, David W.) A feasibility analysis of fixed-slash rational arithmetic. **(80g:68009)**
Matula, David W. *See* **Kornerup, Peter, (80g:68009)**

65G05 Roundoff error

Bailey, D. E. The effect on the solution of a problem of errors in the calculation. **80a:65090**
Braier, Aneta *See* **Nistor, Gh., 80a:65095**
Bustoz, Joaquin (*with* Feldstein, Alan; Goodman, Richard; Linnainmaa, Seppo) Improved trailing digits estimates applied to optimal computer arithmetic. **80i:65044**
Cromme, L. Rundungsfehler bei linearen Approximationsproblemen. **80c:65101**
Feldstein, Alan *See* **Bustoz, Joaquin; et al., 80i:65044**
Frankowski, Krzysztof S. A realistic model for error estimates in the evaluation of elementary functions. **80g:65050**
Friar, J. L. A note on the roundoff error in the Numerov algorithm. **80a:65091**
Goodman, Richard *See* **Bustoz, Joaquin; et al., 80i:65044**
Johnson, Donald B. (*with* Miller, Webb; Minnihan, Brian; Wrathall, Celia) Reducibility among floating-point graphs. **80i:65045**
Kusterer, Roland (*with* Reimer, Manfred) Stable evaluation of polynomials in time $\log n$. **80d:65050**
Larson, John (*with* Sameh, Ahmed) Efficient calculation of the effects of roundoff errors. **80a:65092a**
Errata: "Efficient calculation of the effects of roundoff errors" (ACM Trans. Software 4 (1978), no. 3, 228–236) by Larson and A. Sameh. **80a:65092b**
Linnainmaa, Seppo *See* **Bustoz, Joaquin; et al., 80i:65044**
Markov, S. M. Calculus for interval functions of a real variable using extended interval arithmetic. **80a:65093**
Marzulli, Pietro Bilateral approximation of the solutions of equations and systems using interval analysis. (Italian. English summary) **80a:65094**
Miller, Webb *See* **Johnson, Donald B.; et al., 80i:65045**
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Nieminen, Juhani Screens and rounding mappings. **80b:65054**
Nistor, Gh. (*with* Braier, Aneta) Estimation of the precision of the displacement vector of a construction obtained by indirect weighted measurements. (Romanian. French summary) **80a:65095**
Oliver, J. Rounding error propagation in polynomial evaluation schemes. **80c:65102**
Ratschek, H. Zentrische Formen. **80a:65096**
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Sameh, Ahmed *See* **Larson, John, 80a:65092a** *and* **Larson, John, 80a:65092b**
Stewart, G. W. The effects of rounding error on an algorithm for downdating a Cholesky factorization. **80i:65046**
Tkačenko, O. Ĭ. The possibility of decreasing round-off errors in the computation of the parameters of motion. (Russian) **80d:65051**
Some possibilities for the reduction of round-off errors in the integration of ordinary differential equations. (Russian) **80c:65103**
Tsao, Nai Kuan Error analysis of splitting algorithms for polynomials. **80i:65047**
Wrathall, Celia *See* **Johnson, Donald B.; et al., 80i:65045**

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Baikenov, A. N. An error round-off estimate of a multiplication operation in a nonpositional number system. (Russian) **(80e:68066)**
Beeck, Helmut Schwankungsbereiche linearer Optimierungsaufgaben. **(80h:90093)**
Birkhoff, Garrett (*with* Gulati, Surender) Isotropic distributions of test matrices. (German summary) **(80e:65052)**
Gulati, Surender *See* **Birkhoff, Garrett, (80e:65052)**
Kornerup, Peter *See* **Matula, David W., (80g:68008)**
Matula, David W. (*with* Kornerup, Peter) A feasibility analysis of binary fixed-slash and

floating-slash number systems. (80g:68008)

Reed, Irving S. (*with* Truong, T. K.) Fast Mersenne-prime transforms for digital filtering. (80g:94010)

Truong, T. K. *See* **Reed, Irving S.**, (80g:94010)

Tuo, Nai Kuan On "accurate" evaluation of extended sums. (80k:68045)

65G10 Interval and finite arithmetic

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Global optimization using interval analysis: the one-dimensional case. 80m:65042

Juldašev, Z. H. *See* **Kalmykov, S. A.**, 80f:65050

Kalmykov, S. A. (*with* Juldašev, Z. H.) An interval variant of the double sweep method. (Russian) 80f:65050

Mancini, Louis J. (*with* McCormick, Garth P.) Bounding global minima with interval arithmetic. 80h:65028

McCormick, Garth P. *See* **Mancini, Louis J.**, 80h:65028

Mitrović, Žarko M. On some relations in interval arithmetic. 80g:65051

Reichmann, Karl Ein hinreichendes Kriterium für die Durchführbarkeit des Intervall-Gauss-Algorithmus bei Intervall-Hessenberg-Matrizen ohne Pivotsuche. (English and Russian summaries) 80f:65049

Ullrich, Christian Über schwach zyklische Abbildungen in nichtlinearen Produkträumen und einige Monotonieaussagen. (Czech and Russian summaries) 80f:65050

Secondary classifications:

Faux, Ivor D. (*with* Pratt, Michael J.) ★Computational geometry for design and manufacture. (80d:68134)

Garloff, J. Optimale Schranken bei Intervallinterpolation mit Polynomen und mit Funktionen ax^b. (80j:65008)

Mancini, Louis J. (*with* Wilde, Douglass J.) Signomial dual Kuhn-Tucker intervals. (80g:90095)

Marčenko, L. V. *See* **Nazarenko, T. L.**, (80k:65106)

Nazarenko, T. I. (*with* Marčenko, L. V.) An interval method for solving integro-differential equations of Fredholm type. (Russian) (80k:65106)

Oelschlägel, Dieter (*with* Süsse, Herbert) Fehlerabschätzung beim Verfahren von Wolfe zur Lösung quadratischer Optimierungsprobleme mit Hilfe der Intervallarithmetik. (English and Russian summaries) (80a:90109)

(*with* Süsse, Herbert; Schmietow, Roswitha) Die Behandlung von Aufgaben aus der Optimierung dynamischer Systeme mittels intervallanalytischer Methoden. (80g:93056)

Pratt, Michael J. *See* **Faux, Ivor D.**, (80d:68134)

Schmietow, Roswitha *See* **Oelschlägel, Dieter; et al.**, (80g:93056)

Süsse, Herbert *See* **Oelschlägel, Dieter**, (80a:90109) *and* **Oelschlägel, Dieter; et al.**, (80g:93056)

Ullrich, Christian Blockiterationsverfahren bei schwach zyklischen Abbildungen. (80h:65027)

Wilde, Douglass J. *See* **Mancini, Louis J.**, (80g:90095)

65G99 None of the above, but in this section

Kiełbasiński, Andrzej Basic concepts in numerical error analysis (suggested by linear algebra problems). 80b:65055

Secondary classifications:

Bierbaum, Fritz ★Die numerische Konvergenz von Programmen. (80g:68015)

Dobra, I. D. Asymptotic error estimates for a method of integrating stiff ordinary differential equations. (Russian) (80d:65091)

Kostyrko, V. S. Analysis of computer programs. (Russian) (80k:68006)

Meek, Dereck S. On the inverses of some matrices differing slightly from a symmetric, five-band, Toeplitz form. (80k:65018)

Štetter, H. Interpolation and error estimation in Adams PC-codes. (80k:65054)

65Hxx Nonlinear algebraic or transcendental equations

Secondary classifications:

Jeggle, Hansgeorg ★Nichtlineare Funktionalanalysis. (80k:47057)

Strygina, S. O. A remark on the convergence of the difference method for nonlinear boundary value problems. (Russian) (80b:65113)

Walt, R. ★The numerical solution of algebraic equations. (80k:65004)

65H05 Single equations

Adams, E. (*with* Ames, W. F.) On contracting interval iteration for nonlinear problems in R^n. I. 80g:65052

Aleksandrov, V. A. (*with* Ivnickiĭ, V. A.) Estimation of results of simulation in the case of inexact input information. 80c:65258

Ames, W. F. *See* **Adams, E.**, 80g:65052

Bel'tjukov, B. A. (*with* Gaponenko, L. P.) Application of the idea of Seidel's method in iteration methods for solving nonlinear systems. (Russian) 80k:65041

Casulli, V. (*with* Trigiante, Donato) Multipoint iterative parallel methods for solving equations. (Italian summary) 80f:65051

Chanmahasappa, M. N. A note on the computation of multiple zeros of polynomials by Newton's method. 80c:65104

Chung, Soon Park An algorithm for the zeros of transcendental functions. 80k:65042

Cosnard, Michel Y. *See* **Moré, Jorge J.**, 80c:65110

Davies, M. (*with* Dawson, B.) An automatic search procedure for finding real zeros. 80a:65097

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Feldman, Arnold *See* **Jones, Bush; et al.**, 80d:65052

Frank, Evelyn A practical method for the computation of the zeros of complex polynomials. 80m:65043

Freeman, T. L. A method for computing all the zeros of a polynomial with real coefficients. 80h:65030

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Gaponenko, L. P. *See* **Bel'tjukov, B. A.**, 80k:65041

Gargantini, I. Recent results on the square-root iteration. 80k:65031

Glatz, G. Stabile Deflationsalgorithmen bei der numerischen Berechnung von Polynomnullstellen. 80a:65098

Glebov, V. D. Regularization of controlled iterative processes in problems of trajectory data analysis. (Russian) 80e:65054

Hart, V. G. (*with* Howard, L. N.) Ideas and examples for presenting the Newton-Raphson method. 80c:65105

Hämmler, W. M. Zu über- und unterrelaxierten Newton-Verfahren. 80g:65053

Herzberger, Jürgen Global konvergente Interpolationsmethoden zur Nullstelleneinschliessung. 80b:65056

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Ivnickiĭ, V. A. *See* **Aleksandrov, V. A.**, 80c:65258

Jankowska, Janina Multivariate secant method. 80c:65106

Jones, Bush (*with* Waller, W. G.; Feldman, Arnold) Root isolation using function values. 80d:65052

Kabulov, R. On the power-fractional continuability of the solution of a class of nonlinear equations. (Russian) 80h:65032

Kim, Pyŏng Pae On a method of passing from the critical point in the continuous parameter method. (Korean. English summary) 80c:65107

King, Richard F. An extrapolation method of order four for linear sequences. 80f:65051

Kuczyński, Jacek Solution of a nonlinear equation by globally converging iteration methods with a high convergence index. (Polish) 80f:65052

van der Laan, G. (*with* Talman, A. J. J.) A restart algorithm without an artificial level for computing fixed points on unbounded regions. 80h:65033

Lee, Charles C. (*with* Niu, H. P.) Determination of zeros of polynomials by synthetic division. 80c:65108

Li, Tien Yien (*with* Yorke, James A.) Path following approaches for solving nonlinear equations: homotopy, continuous Newton and projection. 80h:65034

Madorskiĭ, V. M. (*with* Silaev, N. V.) Determination of an initial approximation for a superlinear process. (Russian. English summary) 80k:65043

Miel, George The Kantorovich theorem with optimal error bounds. 80c:65109

Mignotte, Maurice (*with* Payafar, M.) Distance entre les racines d'un polynôme. (English summary) 80d:65053

Moré, Jorge J. (*with* Cosnard, Michel Y.) Numerical solution of nonlinear equations. 80c:65110

Neta, Beny A sixth-order family of methods for nonlinear equations. 80c:65111

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Povoraznikov, N. N. A general method for the solution of transcendental equations. (Russian) 80a:65099

Prelić, Marica D. On Ostrowski's fundamental existence theorem. 80b:65057

Salgal, R. (*with* Shin, Y. S.) Perturbations in fixed point algorithms. 80j:65030

Schmidt, Jochen W. Berichtigungen: "Eine Anwendung des Brouwerschen Fixpunktsatzes zur Gewinnung von Fehlerschranken für Näherungen von Polynomnullstellen" (Beiträge Numer. Math. 6 (1977), 157–163). 80b:65058

Shin, Y. S. *See* **Salgal, R.**, 80j:65020

Siewert, C. E. (*with* Phelps, J. S., III) On the solution of $a\tan(\xi - k\omega) + \tanh\xi = 0$. 80c:65112

Silaev, N. V. *See* **Madorskiĭ, V. M.**, 80k:65043

Soboler, S. L. More on roots of Euler polynomials. (Russian) 80f:65052

Stepleman, R. S. Monotone convergence and effective stopping criteria for numerical processes. 80f:65053

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Trojan, Jerzy How to decrease the combinatory complexity. 80f:65054

Vetters, Klaus Asymptotisch symmetrische Verfahren für Nullstellen- und Extremwertaufgaben einer Veränderlichen. 80f:65055

Wacker, Hansjörg (*with* Zarzer, E. A.; Zulehner, W.) Optimal stepsize control for the globalized Newton method. 80k:65044

Waller, W. G. *See* **Jones, Bush; et al.**, 80d:65052

Wang, Xing Hua Error estimates for some numerical root-finding methods. (Chinese) 80g:65056

An iteration method with second-order convergence for finding zeros of derivatives. (Chinese) 80g:65054

Yorke, James A. *See* **Li, Tien Yien**, 80h:65034

Young, N. J. An identity which implies Cohn's theorem on the zeros of a polynomial. 80f:65053

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Zulehner, W. *See* **Wacker, Hansjörg; et al.**, 80k:65044

Secondary classifications:

Alexander, J. C. The topological theory of an embedding method. (80a:58005)

Arima, Naohiko *See* **Kojima, Masakazu; et al.**, (80g:55003)

Gaponenko, Ju. L. The method of consistent approximation for the solution of nonlinear operator equations. (Russian) (80a:65107)

Garcia, C. B. (*with* Gould, F. J.) A theorem on homotopy paths. (80k:58011)

Gould, F. J. *See* **Garcia, C. B.**, (80k:58011)

Grandinetti, Lucio Factorization versus nonfactorization in quasi-Newtonian algorithms for differentiable optimization. (80f:65071)

Kearfott, Baker An efficient degree-computation method for a generalized method of bisection. (80g:65062)

Kojima, Masakazu (*with* Nishino, Hisakazu; Arima, Naohiko) A PL homotopy for finding all the roots of a polynomial. (80g:55003)

Nishino, Hisakazu *See* **Kojima, Masakazu; et al.,** (80g:55003)

Peitgen, Heinz-Otto (*with* Prüfer, Michael) The Leray-Schauder continuation method is a constructive element in the numerical study of nonlinear eigenvalue and bifurcation problems. (80k:55007)

Prüfer, Michael *See* **Peitgen, Heinz-Otto,** (80k:55007)

Schnorr, C.-P. Improved lower bounds on the number of multiplications/divisions which are necessary to evaluate polynomials. (80k:68030)

Watson, Layne T. Fixed points of C^2 maps. (80e:55002)

65H10 Systems of equations

Avila, J. H. (*with* Concus, Paul) Update methods for highly structured systems of nonlinear equations. 80c:65113

Bataz, Jean-Louis (*with* Dhatt, Gouri) Incremental displacement algorithms for nonlinear problems. 80k:65045

Bolkart, W. *See* **Häussler, W. M.,** 80f:65055

Bus, Jacques C. P. Newton-like methods for solving nonlinear simultaneous equations. 80f:65056

Concus, Paul *See* **Avila, J. H.,** 80c:65113

Dennis, J. E., Jr. (*with* Schnabel, Robert B.) Least change secant updates for quasi-Newton methods. 80j:65021

Dhatt, Gouri *See* **Batoz, Jean-Louis,** 80k:65045

Edelen, Dominic G. B. Globally convergent differential procedures for solving nonlinear systems of equations. 80b:65059

Differential procedures for systems of implicit relations and implicitly coupled nonlinear boundary value problems. 80b:65060

Garcia, C. B. (*with* Zangwill, W. I.) Determining all solutions to certain systems of nonlinear equations. 80i:65054

(*with* Zangwill, W. I.) Finding all solutions to polynomial systems and other systems of equations. 80f:65057

Gay, David M. (*with* Schnabel, Robert B.) Solving systems of nonlinear equations by Broyden's method with projected updates. 80a:65100

Corrigenda: "Modifying singular values: existence of solutions to systems of nonlinear equations having a possibly singular Jacobian matrix" (Math. Comp. 31 (1977), no. 140, 962–973). 80g:65055

Hačatrjan, V. S. A method for solving a system of nonlinear algebraic equations of special structure of large dimension. (Russian) 80d:65054

Häussler, W. M. (*with* Bolkart, W.) Affin-invariante Konvergenzsätze und automatische Schrittweitensteuerung für Einbettungsverfahren. 80i:65055

Hirsh, Morris W. (*with* Smale, Stephen) On algorithms for solving $f(x)=0$. 80b:65061

Hoyer, Wolfgang *See* **Schmidt, Jochen W.,** 80c:65115

Incerti, Sandro (*with* Parisi, Valerio; Zirilli, Francesco) A new method for solving nonlinear simultaneous equations. 80f:65058

Jankowska, Janina Theory of multivariate secant methods. 80i:65056

Jittorntrum, Krisorn (*with* Osborne, M. R.) A modified barrier function method with improved rate of convergence for degenerate problems. 80k:65046

Keller, Herbert B. Global homotopies and Newton methods. 80f:65059

Kubíček, Milan (*with* Marek, Miloš) Evaluation of limit and bifurcation points for algebraic equations and nonlinear boundary-value problems. 80d:65055

Lindfield, G. R. (*with* Simpson, D. C.) Modifications of the continuation method for the solution of systems of nonlinear equations. 80e:65055

Marek, Miloš *See* **Kubíček, Milan,** 80d:65055

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Generalization of the methods of Brent and Brown for solving nonlinear simultaneous equations. 80c:65114

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Watson, Layne T. Solving the nonlinear complementarity problem by a homotopy method. 80h:65035

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Zirilli, Francesco *See* **Incerti, Sandro; et al.,** 80f:65058

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Barrow, David L. The topological degree applied to some problems in approximation theory. (80f:41021)

Chow, Shui Nee (*with* Mallet-Paret, John; Yorke, James A.) Finding zeroes of maps: homotopy methods that are constructive with probability one. (80d:55002)

(*with* Mallet-Paret, John; Yorke, James A.) A homotopy method for locating all zeros of a system of polynomials. (80k:58012)

Clarke, Bruce L. Asymptotes and intercepts of real-power polynomial surfaces from the geometry of the exponent polytope. (80m:52003)

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Garcia, C. B. (*with* Gould, F. J.) Scalar labelings for homotopy paths. (80m:90082)

Gould, F. J. *See* **Garcia, C. B.,** (80m:90082)

Heindl, G. Some remarks on the convergence of descent methods. (80e:65067)

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Kuznecov, N. N. (*with* Vološin, S. A.) Stability of a class of implicit finite-difference schemes. (Russian) (80b:65122)

Mallet-Paret, John *See* **Chow, Shui Nee; et al.,** (80d:55002) *and* **Chow, Shui Nee; et al.,** (80k:58012)

Marzulli, Pietro Bilateral approximation of the solutions of equations and systems using interval analysis. (Italian. English summary) (80a:65094)

(Peitgen, Heinz-Otto) *See* **Functional differential equations and approximation of fixed points,** (80g:00005)

Prüfer, Michael (*with* Siegberg, Hans Willi) On computational aspects of topological degree in $\mathbb{R}^n$. (80k:55011)

Siegberg, Hans Willi *See* **Prüfer, Michael,** (80k:55011)

Smith, J. *See* **Whitson, J. C.; et al.,** (80a:78015)

Stynes, Martin A simplification of Stenger's topological degree formula. (80m:55002)

Tanabe, Kunio Continuous Newton-Raphson method for solving an underdetermined system of nonlinear equations. (80i:58010)

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(Walther, Hans-Otto) *See* **Functional differential equations and approximation of fixed points,** (80g:00005)

Whealton, J. H. *See* **Whitson, J. C.; et al.,** (80a:78015)

Whitson, J. C. (*with* Smith, J.; Whealton, J. H.) Calculations involving ion beam source. (80a:78015)

Yorke, James A. *See* **Chow, Shui Nee; et al.,** (80d:55002) *and* **Chow, Shui Nee; et al.,** (80k:58012)

Approximation of fixed points *See* **Functional differential equations and approximation of fixed points,** (80g:00005)

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Functional Differential Equations and Approximation of Fixed Points *See* **Functional differential equations and approximation of fixed points,** (80g:00005)

65H15 Eigenvalues, eigenvectors

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Avila, J. H. (*with* Concus, Paul) Update methods for highly structured systems of nonlinear equations. (80c:65113)

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Fursikov, A. V. *See* **Vilik, M. I.,** (80i:35149)

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Višik, M. I. (*with* Fursikov, A. V.) Translationally homogeneous statistical solutions and individual solutions with infinite energy of a system of Navier-Stokes equations. (Russian) (80i:35149)
Yorke, James A. *See* Kaplan, James L., (80k:47078)

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Bobileva, O. M. *See* Rvačov, V. L., 80i:65059
Rvačov, V. L. (*with* Bobileva, O. M.) A generalized Taylor formula of difference type. (Russian. English summary) 80i:65059

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Alexander, J. C. Numerical continuation methods and bifurcation. (80k:58036)

65Jxx Numerical analysis in abstract spaces

65J05 General

Al'ber, Ja. I. The monotonicity method and the approximate computation of the value of a nonlinear unbounded operator. (Russian) 80d:65061
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Arĭstov, V. V. Two methods of accelerated group functional transformation. (Russian. English summary) (80j:65012)
Babuška, I. (*with* Rheinboldt, Werner C.) Adaptive procedures and reliability of the finite element method. (80f:65113)
Berechet, Oprea (*with* Maliţa, Mircea) Schemes with four "lines". (Romanian. French summary) (80i:65131)
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Koršunov, V. A. (*with* Tanana, V. P.) Determination of the energy spectrum of a Bose system by thermodynamic functions. (Russian) (80d:82016)
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Tanana, V. P. *See* Koršunov, V. A., (80d:82016)
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Thomas, G. The consistence error of extended variational principles in the finite element method. (80a:65235)
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Vasin, V. V. Discrete convergence and finite-dimensional approximation of regularizing algorithms. (Russian) (80g:47014)
Witsch, Kristian Projektive Newton-Verfahren und Anwendungen auf nichtlineare Randwertaufgaben. (English summary) (80a:65160)

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Bakušinskiĭ, A. B. Optimal and quasi-optimal methods for the solution of linear problems that are generated by regularizing algorithms. (Russian) 80d:65068
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Delves, L. M. *See* **Musa, F. A., 80g:65068**

Delvos, F.-J. Splines and pseudo-inverses. (French summary) **80a:65118**

Digo, G. B. On the question of the optimal choice of a coordinate system. (Russian) **80b:65037**

Emlin, I. V. (*with* Krasnosel'skiĭ, M. A.) On the theory of ill-posed problems. (Russian) **80i:65063**

Fedotov, A. M. Some inequalities for the error of the approximate solutions of operator equations. (Russian) **80g:65064**

Franklin, Joel N. Minimum principles for ill-posed problems. **80g:65065**

Friedrich, Volkmar Zur stochastischen Regularisierung nichtkorrekter Gleichungen in Hilberträumen. (English summary) **80k:65052**

(*with* Uhlig, Andreas) Zur stochastischen Regularisierung linearer Gleichungen in Hilberträumen. **80d:65069**

Glušenkov, V. D. Stability of two-layer difference schemes on an unbounded interval of time. (Russian) **80k:65053**

Goerisch, Friedrich Über Quotienten-Einschliessungssätze bei allgemeinen Eigenwertaufgaben. (English summary) **80j:65022**

Golberg, Michael A. A method of adjoints for solving some ill-posed equations of the first kind. **80c:65121**

Groetsch, C. W. (*with* King, J. Thomas) Extrapolation and the method of regularization for generalized inverses. **80e:65057**

On rates of convergence for approximations to the generalized inverse. **80b:65072**

Hofmann, Bernd Über Quelldarstellungen bei einigen linearen Regularisierungsverfahren. **80d:65070**

Imomnazarov, B. Solution of an operator equation of the first kind in abstract spaces. (Russian) **80b:65073**

Ivanov, V. K. (*with* Vasin, V. V.; Tanana, V. P.) ★Теория линейных некорректных задач и ее приложения. (Russian) [Theory of linear ill-posed problems and its applications] **80f:65062**

Ivanov, V. V. (*with* Kotenkova, G. N.) A method of solving linear equations. (Russian) **80b:65074**

Minimization of the number of operations for linear ill-posed problems. (Russian) **80g:65066**

Jagola, A. G. The choice of a regularization parameter according to the generalized residual principle. (Russian) **80g:65067**

King, J. Thomas *See* **Groetsch, C. W., 80e:65057**

Konstantinova, Ja. V. An iteration method of implicit type for equations of the first kind and its comparison with the explicit method. (Russian) **80c:65122**

Kotenkova, G. N. *See* **Ivanov, V. V., 80b:65074**

Krasnosel'skiĭ, M. A. *See* **Emlin, I. V., 80i:65063**

Lemaire, Reinard The method of false perturbations for nonlinear eigenvalue problems. (Russian) **80b:65075**

Le Roux, Marie-Noëlle Semi-discrétisation en temps pour les équations d'évolution paraboliques lorsque l'opérateur dépend du temps. (English summary) **80e:65056**

Mahmudov, A. P. A generalized quasilinear eigenvalue problem. (Russian) **80a:65119**

Martinjuk, A. Ē. The Galerkin-Krylov method and its rate of convergence. (Russian) **80b:65076**

Mills, Wendell H., Jr. The resolvent stability condition for spectra convergence with application to the finite element approximation of noncompact operators. **80f:65064**

Optimal error estimates for the finite element spectral approximation of noncompact operators. **80f:65065**

Mizgailov, V. N. (*with* Muhin, V. V.; Romanov, V. A.) Optimal statistical regularization of operator equations with restriction on the norm of the solution. (Russian) **80i:65064**

Muhin, V. V. *See* **Mizgailov, V. N.; et al., 80i:65064**

Mukherjee, Sulekha *See* **Sen, Rabindranath, 80f:65066**

Musa, F. A. (*with* Delves, L. M.) On weakly asymptotically diagonal systems. **80g:65068**

Papernov, E. L. Solution of infinite systems of linear algebraic equations. (Russian) **80a:65120**

de Pillis, John Improved convergence for linear systems using three-part splittings. **80d:65071**

Raviart, Pierre-Arnaud *See* **Crouzeix, Michel, 80f:65063**

Rogava, D. L. An application of Čebyšev polynomials in iteration processes. (Russian. Georgian and English summaries) **80b:65077**

Romanov, V. A. *See* **Mizgailov, V. N.; et al., 80i:65064**

Sen, Rabindranath (*with* Mukherjee, Sulekha) Solution by iteration of bounded linear operator equations in a supermetric linear space. **80f:65066**

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Treinikov, V. N. A stable nonlinear iteration process. (Russian) **80i:65065**

A nonlinear regularizing algorithm and some of its applications. (Russian) **80i:65066**

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The pseudo-inverse operator for the product of two operators. (Russian) **(80h:47002)**

Aliev, F. A. Stability of the Bubnov-Galerkin method for first-order equations. (Russian. Armenian and English summaries) **(80g:34060)**

Andrew, A. L. Existence and uniqueness regions for solutions of nonlinear equations. **(80f:47011)**

Berlinkov, V. M. Estimation of the stability of quasisolutions, and the modulus of continuity. (Russian) **(80c:47016)**

Blum, Edward K. (*with* Geltner, P. B.) Numerical solution of eigentuple-eigenvector problems in Hilbert spaces by a gradient method. **(80a:65071a)**

(*with* Curtis, A. R.) A convergent gradient method for matrix eigenvector-eigentuple problems. **(80a:65071b)**

Chillingworth, David *See* **King, J. Thomas, (80m:47009)**

Curtis, A. R. *See* **Blum, Edward K., (80a:65071b)**

Dahlquist, Germund G-stability is equivalent to A-stability. **(80b:65097)**

Danilin, A. R. Stability of finite-dimensional approximations in the generalized method of the residual. (Russian) **(80g:47010)**

Ditkin, V. V. An iterative method for the solution of an eigenvalue problem for a pencil of linear operators. (Russian) **(80d:47024)**

Domanskiĭ, E. N. On the question of the solvability of a linear operator equation. (Russian) **(80i:47018)**

Džumaev, S. Convergence theorems for equations with noninverse operators. (Russian. Tajiki summary) **(80g:47011)**

Geltner, P. B. *See* **Blum, Edward K., (80a:65071a)**

Hartung, Joachim Zur Methode des steilsten Abstiegs für singuläre lineare Operatoren-Gleichungen. (English summary) **(80d:65078)**

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Knowles, Gregory P. Some problems in the control of distributed systems, and their numerical solution. **(80c:93065)**

Korkina, L. F. A correctness class of operator equations of the first kind. (Russian) **(80g:47013)**

Ludwig, S. Über die Approximation verallgemeinerter Lösungen mit dem Galerkinverfahren. (Russian and Estonian summaries) **(80k:47013)**

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Meleško, V. I. An investigation of stable L-pseudo-inverses of unbounded closed operators by the regularization method. (Russian) **(80i:47020)**

Morozov, V. A. Solution of operator equations of the first kind by the method of finite-rank approximations. (Russian) **(80k:47014)**

Moszyński, Krzysztof (*with* Pokrzywa, Andrzej) Some remarks on spectral approximation for compact operators. (Polish) **(80d:47030)**

Neuberg, Jiří Universality of the best determined terms method. (Russian and Czech summaries) **(80i:47021)**

O'Brien, Robert E., Jr. Weakly stable operators. **(80f:93062)**

Pokrzywa, Andrzej *See* **Moszyński, Krzysztof, (80d:47030)**

Rall, L. B. Perturbation methods for the solution of linear problems. **(80g:47017)**

Satō, Ryōtarō Ergodic theory and the approximate solution of simultaneous linear functional equations. **(80g:47008)**

Schwartz, Bernd Zur Minimierung diskreter Maximumfunktionen mit Beschränkungen. **(80g:49018)**

Vasin, V. V. Regularization of the problem of calculating the values of an unbounded positive operator. (Russian) **(80i:47017)**

Ziv, A. D. An a posteriori estimate of the inverse operator for a second order differential equation with degeneration. (Russian) **(80c:65182)**

65J15 Equations with nonlinear operators (do not use 65Hxx)

Altman, Mieczysław A strategy theory of solving equations. **80b:65078**

Badriev, I. B. *See* **Ljaiko, A. D.; et al., 80e:65059**

Balázs, Martin Notes on the convergence of the method of chords and of Steffensen's method in Banach spaces. (Romanian summary) **80c:65123**

Bartiš, M. Ja. Some recursive iteration methods for the solution of nonlinear operator equations. (Russian. English summary) **80a:65121**

Deuflhard, P. (*with* Heindl, G.) Affine invariant convergence theorems for Newton's method and extensions to related methods. **80i:65068**

Fam Kĭ An' Projection-iteration methods for solving operator equations. (Russian) **80k:65054**

Gončarskiĭ, A. V. (*with* Stepanov, V. V.) Algorithms for the approximate solution of ill-posed problems on some compact sets. (Russian) **80g:65069**

Grebennikov, A. I. Optimal methods of solution of nonlinear ill-posed problems. (Russian) **80e:65058**

Gwinner, Joachim On the regularization of monotone variational inequalities. **80d:65072**

Hausmann, Dirk (*with* Körte, Bernhard) Oracle algorithms for fixed-point problems—an axiomatic approach. **80c:65124**

den Heijer, C. ★The numerical solution of nonlinear operator equations by imbedding methods. **80k:65055**

Heindl, G. *See* **Deuflhard, P., 80i:65068**

Kacewicz, Bolesław Integrals with a kernel in the solution of nonlinear equations in N dimensions. **80f:65068**

Karčevskiĭ, M. M. *See* **Ljaiko, A. D.; et al., 80e:65059**

Knopova, S. M. (*with* Savelova, T. I.) Application of projection methods to solving unstable problems. (Russian) **80i:65069**

Koppel', H. Construction of some families of iteration formulas. (Russian. Estonian and English summaries) **80c:65125**

Körte, Bernhard *See* **Hausmann, Dirk, 80c:65124**

Kreth, H. Time-discretisations for nonlinear evolution equations. **80b:65079**

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Lin, Qun Some problems concerning approximate solutions of operator equations. (Chinese. English summary) **80k:65056**

Liskovec, O. A. The principle of a smoothing functional in the projection method of finding regularized solutions for equations of the first kind. (Russian) **80g:65070**

Ljalko, A. D. (*with* Badriev, I. B.; Karčevskiĭ, M. M.) The variational method for equations with monotone discontinuous operators. (Russian) **80c:65059**

Madorskiĭ, V. M. (*with* Silaev, N. V.) A hyperlinear process for the solution of nonlinear equations. (Russian. English summary) **80b:65080**

Martinjuk, A. È. Some applications of methods of Galerkin's type and combined type to nonlinear equations. (Russian) **80m:65046**

Morozov, V. A. Regular method for solving nonlinear problems. **80m:65047**

Păvăloiu, Ion Une généralisation de la méthode de Newton. **80d:65073**

Petryshyn, Walter V. On the solvability of nonlinear equations involving abstract and differential operators. **80c:65126**

Phan Van Hap Application of generalized quadrature formulas to the approximate solution of operator equations. (Russian) **80f:65067**

Sapagovas, Mifodijus The alternately-triangular method for the solution of problems with a nonlinear or nonselfadjoint operator. (Russian. Lithuanian and English summaries) **80b:65081**

Savelova, T. I. *See* Knopova, S. M., **80f:65069**

Schneider, K. R. Zur Konvergenzbeschleunigung bei Summen strikt kontraktiver Operatoren. (English and Russian summaries) **80a:65123**

Šestopalov, V. P. *See* Tučkin, Ju. A., **80a:65124**

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Smagin, V. V. The rate of convergence of the Galerkin method of solution of an abstract quasilinear parabolic equation. (Russian) **80m:65048**

Sprekels, Jürgen (*with* Voss, Heinrich) Pointwise inclusions of fixed points by finite-dimensional iteration schemes. **80f:65069**

Stepanov, V. V. *See* Gončarskiĭ, A. V., **80g:65069**

Tanana, V. P. Approximate solution of implicit operator equations of the first kind by the regularization method. (Russian) **80e:65060**

Teschow, Gerhard On an iteration procedure. **80f:65070**

Traub, J. F. (*with* Woźniakowski, H.) Convergence and complexity of Newton iteration for operator equations. **80e:65061**

Tučkin, Ju. A. (*with* Šestopalov, V. P.) A numerical method for the solution of operator equations. (Russian) **80a:65124**

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Vahidov, Š. Some iterative methods for solving operator equations in locally convex spaces. (Russian) **80j:65023**

Varol, Yaakov L. (*with* Westreich, David) Applications of Galerkin's method to bifurcation and two-point boundary value problems. **80h:65038**

Voss, Heinrich Nichtlineare Eigenwertaufgaben und Kegeliterationen. (English summary) **80m:65049**

See also Sprekels, Jürgen, **80f:65069**

Wakulicz, Andrzej Numerical methods for solving variational inequalities. **80c:65127**

Westreich, David *See* Varol, Yaakov L., **80h:65038**

Wolfe, M. A. Extended iterative methods for the solution of operator equations. **80a:65126**

Woźniakowski, H. *See* Traub, J. F., **80e:65061**

Secondary classifications:

Balázs, Martin On the method of the chords and Steffensen's method in bounded regions in Banach spaces. **(80f:47087)**

Bertero, M. (*with* de Mol, C.; Viano, G. A.) On the problems of object restoration and image extrapolation in optics. **(80d:78004)**

Conjura, E. (*with* Petryshyn, Walter V.) Extension of nonlinear densely defined operators, rates of convergence for the error and the residual, and application to differential equations. **(80c:47056)**

Gerdienko, E. I. Computational errors and the convergence of iteration processes for the solution of operator equations. (Russian) **(80c:47057)**

Gröger, Konrad On the solution of a class of equations with monotone operators by iteration and projection-iteration. **(80c:47058)**

Discrete-time Galerkin methods for nonlinear evolution equations. **(80e:47053)**

Hurodze, T. A. Iteration processes for split operators. (Russian. Georgian and English summaries) **(80f:47059)**

Kolokol'čikov, V. V. The convergence of the method of successive approximations with integral transformations for problems of nonlinear viscoelasticity. (Russian) **(80f:73047)**

Korneev, V. G. Grid operators that are energy-equivalent to operators generated by piecewise Hermite interpolations. (Russian) **(80g:65111)**

Meleško, V. I. The convergence rate of perturbed iteration methods for determination of L-generalized solutions to nonlinear operator equations. (Russian) **(80a:47103)**

de Mol, C. *See* Bertero, M.; et al., **(80d:78004)**

Neuberger, J. W. Boundary value problems for systems of nonlinear partial differential equations. **(80f:65109)**

Noor, M. Aslam Error analysis of generalized variational inequalities. **(80f:49012)**

Ohta, Yuzo Nonlinear accretive mappings in Banach spaces: the solvability and a solution algorithm. **(80j:47082)**

Păvăloiu, Ion Une variante de la méthode de Newton. **(80g:47078)**

Petryshyn, Walter V. *See* Conjura, E., **(80c:47056)**

Rjazanceva, I. P. The Galerkin method for the solution of equations with discontinuous monotone operators. (Russian) **(80e:47054)**

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Sen, Rabindranath On the iterative process of solving nonlinear operator equations in PTL-spaces. **(80a:47105)**

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Williamson, T. E., Jr. Geometric estimation of the solution to $x + Tx = 0$ for unbounded densely defined monotone operator T in Hilbert space. **(80b:47068)**

65J99 None of the above, but in this section

Secondary classifications:

Thonov, A. N. Les problèmes mal posés et les problèmes mathématiques de traitement automatique de résultats d'expériences. **(80m:35072)**

65Kxx Mathematical programming, optimization and variational techniques [See also 49Dxx, 90Cxx, 93–XX.]

Secondary classifications:

Hoffmann, A. (*with* Schade, L.) Bericht über die Arbeitstagung "Mathematische Optimierung". Abstracts. **(80c:90001)**

Schade, L. *See* Hoffmann, A., **(80c:90001)**

Heiligenstadt *See* Hoffmann, A.; et al., **(80c:90001)**

Mathematical optimization *See* Hoffmann, A.; et al., **(80c:90001)**

Workshop:

Mathematical Optimization *See* Hoffmann, A.; et al., **(80c:90001)**

65K05 Mathematical programming

Abaffy, József (*with* Galántai, Aurél) Error estimations for conjugate direction methods. **80b:65082**

Bazaraa, Mokhtar S. (*with* Eu, Jai H.) The Topkis-Veinott algorithm for solving nonlinear programs with lower and upper bounded variables. **80h:65039**

Beĭko, Ĭ. V. (*with* Gnatjuk, V. O.; Moĭko, V. V.) The generalized L-problem of moments, and a method of solving it. (Russian) **80a:65127**

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Collier, F. M. (*with* Toint, Ph. L.) Errata corrige: "On the accelerating property of an algorithm for function minimization without calculating derivatives" (J. Optim. Theory Appl. 23 (1977), no. 4, 531–547). **80c:65128**

Censor, Yair (*with* Lakshminarayanan, A. V.; Lent, Arnold) Relaxational methods for large-scale entropy optimization problems, with application in image reconstruction. **80g:65071**

Dax, Achiya *See* Kaniel, Shmuel, **80h:65040**

Dennemeyer, R. F. CGS algorithms for constrained extremization of functions. **80f:65070**

Eu, Jai H. *See* Bazaraa, Mokhtar S., **80h:65039**

Feagin, T. *See* Mikkilineni, R. P., **80a:65130**

Fedotov, A. M. Two approaches to the study of conditionally correct problems with random errors in input data. (Russian) **80c:65259**

Galántai, Aurél *See* Abaffy, József, **80b:65082**

Gnatjuk, V. O. *See* Beĭko, Ĭ. V.; et al., **80a:65127**

Grandinetti, Lucio Factorization versus nonfactorization in quasi-Newtonian algorithms for differentiable optimization. **80f:65071**

Kaniel, Shmuel (*with* Dax, Achiya) A modified Newton's method for unconstrained minimization. **80h:65040**

Kononov, V. A. (*with* Birjukova, T. L.) Optimal methods for the search of extrema on a class of nonunimodal functions. (Russian) **80f:65071**

Lakshminarayanan, A. V. *See* Censor, Yair; et al., **80g:65071**

Lasiecka, Irena (*with* Malanowski, Kazimierz) On discrete-time Ritz-Galerkin approximation of control constrained optimal control problems for parabolic equations. **80a:65128**

Lent, Arnold *See* Censor, Yair; et al., **80g:65071**

Lyness, J. N. A bench mark experiment for minimization algorithms. **80m:65050a**

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Malanowski, Kazimierz *See* Lasiecka, Irena, **80a:65128**

Malozemov, V. N. (*with* Solomennikov, A. V.) The rate of convergence of the method of equalization of maxima. (Russian) **80a:65129**

Mikkilineni, R. P. (*with* Feagin, T.) A computational method for minimization with nonlinear constraints. **80a:65130**

Mirzakhmedov, È. A. Balancing the elements of a multi-dimensional matrix by the method of equalizing the means of the deviations. (Russian) **80c:65062**

Moĭko, V. V. *See* Beĭko, Ĭ. V.; et al., **80a:65127**

Mukai, H. (*with* Polak, Elijah) On the use of approximations in algorithms for optimization problems with equality and inequality constraints. **80a:65131**

Perry, Avinoam A modified conjugate gradient algorithm. **80a:65132**

Pintér, János On the convergence and computational efficiency of random search optimization. **80g:65072**

Polak, Elijah *See* Mukai, H., **80a:65131**

Rothblum, Uriel G. On solving optimization problems with proportion-constraints. **80a:65133**

Sarvanov, V. I. The mean value of the functional in sampling problems. (Russian. English summary) **80a:65134**

Schittkowski, K. (*with* Stoer, J.) A factorization method for the solution of constrained linear least squares problems allowing subsequent data changes. **80c:65129**

Schnabel, Robert B. Optimal conditioning in the convex class of rank two updates. **80c:65130**

Schulze, R. Zur Konvergenz der Zoutendijkschen Gradientenverfahren. **80a:65135**

Sobol', I. M. On the systematic search in a hypercube. **80f:65072**

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Soumtag, Yves Sur l'approximation des solutions d'une classe d'inéquations. (English summary) **80a:65136**

Stoer, J. *See* Schittkowski, K., **80c:65129**

Strodiot, Jean-Jacques *See* Toint, Ph. L., **80a:65138**

Tarasenko, G. S. Investigation of relaxation algorithms of random search of general type. (Russian) **80a:65137**

Toint, Ph. L. (*with* Strodiot, Jean-Jacques) On the rate of convergence of unconstrained optimization algorithms that use a decomposition in uniformly independent subspaces. **80a:65138**

See also Collier, F. M., **80c:65128**

Werner, Jochen Über die globale Konvergenz von Variable-Metrik-Verfahren mit nicht-exakter Schrittweitenbestimmung. (English summary) **80c:65131**

Secondary classifications:

Auslender, Alfred Minimization de fonctions localement lipschitziennes: applications à la programmation mi-convexe, mi-différentiable. **80a:90116**

Bock, H. G. Numerical solution of nonlinear multipoint boundary value problems with applications to optimal control. **80a:65165**

Bus, Jacques C. P. Newton-like methods for solving nonlinear simultaneous equations. **80f:65056**

Dennis, J. E., Jr. (*with* Schnabel, Robert B.) Least change secant updates for quasi-Newton methods. **80j:65021**

Finin, G. S. *See* **Valičev, K. G., 80a:65192**

Glad, Torkel (*with* Polak, Elijah) A multiplier method with automatic limitation of penalty growth. **80j:90094**

Gol'štein, E. G. (*with* Tret'jakov, N. V.) Modified Lagrangians in convex programming and their generalizations. **80c:90124**

Hinderer, K. On approximate solutions of finite-stage dynamic programs. **80j:49032**

Jeroslow, Robert G. Some relaxation methods for linear inequalities. **80g:49038**

Kaplan, A. A. A convex programming method with internal regularization. (Russian) **80a:90111**

Magueregui, Javier A modified Newton algorithm for functions over convex sets. **80a:65110**

Mancini, Louis J. (*with* McCormick, Garth P.) Bounding global minima with interval arithmetic. **80h:65028**

McCormick, Garth P. *See* **Mancini, Louis J., 80h:65028**

Mokhtar-Kharroubi, Hocine Sur quelques méthodes de gradient réduit sous contraintes linéaires. **80j:90098**

Mukai, H. (*with* Polak, Elijah) A second-order method for unconstrained optimization. **80b:90120**

Nakamichi, J. (*with* Washizu, K.) A direct approach using the finite element method for the solution of the linear optimal control problem with a quadratic criterion. **80a:93101**

Papakyriazis, Panagiotis A. On the determination of maximum accuracy for regression processes with endogenous variable constraints. **80i:62064**

Polak, Elijah *See* **Mukai, H., 80b:90120** *and* **Glad, Torkel, 80j:90094**

Powell, M. J. D. The convergence of variable metric methods for nonlinearly constrained optimization calculations. **80c:90138**

Rodabaugh, D. J. (*with* Thompson, Skip) Adams-type methods with increased ranges of stability. **80a:65155**

Schittkowski, K. An adaptive precision method for nonlinear optimization problems. **80a:49065**

Schnabel, Robert B. *See* **Dennis, J. E., Jr., 80j:65021**

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Valičev, K. G. (*with* Finin, G. S.) Numerical solution of Riccati's matrix equation. (Russian. English summary) **80a:65192**

Volynskiĭ, È. I. Some extrapolation approaches in solving complex optimization problems. (Russian) **80a:90130**

Washizu, K. *See* **Nakamichi, J., 80a:93101**

Wilde, Douglass J. ★Globally optimal design. **80d:73002**

Zang, Israel A new arc algorithm for unconstrained optimization. **80a:90115**

65K10 Optimization and variational techniques

Aida-Zade, K. R. The method of polar coordinates for minimization of the ravined structure functions. (Russian) **80e:65063**

Allwright, J. C. Global convergence rates for descent algorithms: improved results for strictly convex problems. **80g:65073**

Avriel, Mordecai (*with* Dauer, Jerald P.) A homotopy based approach to unconstrained optimization. **80f:65073**

Bair, Jacques A rapid view on the utility of separation theorems for inequalities and extrema problems. **80d:65074**

Bančev, V. C. On minimization of functions by generalized methods of integrating ordinary differential equations. (Russian) **80j:65024**

Best, Michael J. A quasi-Newton method can be obtained from a method of conjugate directions. **80c:65132**

Boland, W. Robert (*with* Kowalik, J. S.) Extended conjugate-gradient methods with restarts. **80c:65133**

(*with* Kamgnia, E. R.; Kowalik, J. S.) A conjugate-gradient optimization method invariant to nonlinear scaling. **80f:65074**

See also **Kowalik, J. S.; et al., 80d:65080**

Botsaris, C. A. E. A Newton-type curvilinear search method for constrained optimization. **80e:65064**

Buckley, A. G. A combined conjugate-gradient quasi-Newton minimization algorithm. **80b:65083**

Bulanyi, A. P. (*with* Danilin, Ju. M.) Quasi-Newtonian minimization algorithms that are based on the construction of systems of conjugate vectors. (Russian) **80b:65084**

Cahlon, Baruch The numerical solution of a variational problem in automatic control. **80a:65139**

Čan Han' Some methods of minimization without limitations. (Russian) **80e:65065**

Danilin, Ju. M. *See* **Bulanyi, A. P., 80b:65084**

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Dechert, Dee Optimal control problems from second-order difference equations. **80d:65075**

Denisov, D. V. The method of random search in problems of conditional minimization. (Russian) **80d:65076**

A method for iterative regularization in problems of conditional minimization. (Russian) **80e:65066**

Dennis, J. E., Jr. (*with* Mei, H. H. W.) Two new unconstrained optimization algorithms which use function and gradient values. **80j:65025**

Dunham, Charles B. Efficiency of estimation of maxima. **80g:65074**

Endlbaev, K. M. The extremal of Epstein's zeta function from four variables. (Russian) **80f:65075**

Fedorova, Irina Search for a global optimum in multi-extremal problems. (Russian) **80c:65134**

Fortuna, Zenon Some convergence properties of the conjugate gradient method in Hilbert space. **80f:65076**

Glashoff, Klaus Über die Behandlung inverser Probleme bei streng zeichenfesten Kernen. **80b:65072**

Goh, B. S. Differential equation algorithms for minimizing a function subject to nonnegative constraints. **80g:65075**

Gol'štein, E. G. Convergence of the gradient method for finding the saddle points of modified Lagrangian functions. (Russian) **80d:65077**

Gupal, A. M. Methods for the minimization of functions, which satisfy the Lipschitz condition, with averaging of descent directions. (Russian. English summary) **80b:65085**

Gutknecht, Martin H. Ein Abstiegsverfahren für nicht-diskrete Tschebyscheff-Approximationsprobleme. (English summary) **80c:65135**

Hacki, J. Solution of optimization problems with nonlinear restrictions via continuation methods. **80f:65073**

Hartung, Joachim Zur Methode des steilsten Abstiegs für singuläre lineare Operatoren-Gleichungen. (English summary) **80d:65078**

Heindl, G. Some remarks on the convergence of descent methods. **80e:65067**

Herrmann, Hans Gerhard Ein Memory Gradient Verfahren. **80g:65076**

Il'in, V. P. Gradient alternating-direction methods. **80e:65068**

Johnson, M. A. Bounds for an optimization problem with a linear programming structure. **80m:65051**

Kamgnia, E. R. *See* **Kowalik, J. S.; et al., 80d:65080** *and* **Boland, W. Robert; et al., 80f:65074**

Kerimov, A. K. Galerkin approximation for optimal control problems with distributed parameters of parabolic type. (Russian) **80k:65057**

Kijasko, G. A. Optimally accurate minimization algorithms for differentiable functions of one variable. (Russian. English summary) **80m:65052**

Kirsch, Andreas (*with* Warth, Wolfgang; Werner, Jochen) ★Notwendige Optimalitätsbedingungen und ihre Anwendung. **80a:65140**

Kodama, Shinzo *See* **Yoshida, Kaname; et al., 80g:65078**

Korablev, A. I. Relaxation methods for minimizing pseudoconvex functions. (Russian) **80e:65069**

Korotčenko, A. G. Search for minima of some unimodal functions. (Russian) **80i:65074**

Kosmol, Peter Nichtexpansive Abbildungen bei Optimierungsverfahren. **80d:65079**

Kowalik, J. S. (*with* Kamgnia, E. R.; Boland, W. Robert) An exponential function as a model for a conjugate gradient optimization method. **80d:65080**

See also **Boland, W. Robert, 80c:65133** *and* **Boland, W. Robert; et al., 80f:65074**

Kusraev, A. G. Convex approximations of nonsmooth operators and necessary conditions for extremum. (Russian) **80f:65077**

Lemaréchal, Claude Optimisation non différentiable: methodes de faisceaux. (English summary) **80k:65058**

Mahmoud, M. S. (*with* Vogt, William G.; Mickle, Marlin H.) Decomposition and coordination methods for constrained optimization. **80e:65070**

Matsubara, Masakazu *See* **Watanabe, N., 80a:65142**

Mayne, D. Q. *See* **Polak, Elijah, 80c:65138**

Mei, H. H. W. *See* **Dennis, J. E., Jr., 80j:65025**

Mickle, Marlin H. *See* **Mahmoud, M. S.; et al., 80e:65070**

Mockus, Jonas Sufficient conditions for the convergence of Bayesian methods to the absolute minimum of continuous functions. (Russian. Lithuanian and English summaries) **80b:65086**

Mukai, H. Readily implementable conjugate gradient methods. **80a:65053**

Müller-Wichards, Dieter Regularisierung von verallgemeinerten Pólya Algorithmen. (English summary) **80c:65136**

Nazareth, Larry A relationship between the BFGS and conjugate gradient algorithms and its implications for new algorithms. **80f:65078**

Nguyen, V. Hien (*with* Strodiot, Jean-Jacques) Some properties of a uniformly linearly independent sequence of subspaces. **80d:65081**

Norkin, V. I. Nonlocal algorithms for the minimization of nondifferentiable functions. (Russian. English summary) **80c:65137**

Polak, Elijah (*with* Mayne, D. Q.) On the finite solution of nonlinear inequalities. **80c:65138**

Poljak, B. T. (*with* Skokov, V. A.) Solution of least squares problems. (Russian) **80c:65139**

Potapov, M. M. Difference approximation of minimax problems for Goursat-Darboux systems in the presence of phase constraints. (Russian) **80c:65140**

Difference approximation and the regularization of optimal control problems of Goursat-Darboux systems. (Russian) **80f:65079**

Presler, V. T. *See* **Zaharov, V. V., 80e:65072**

Ritter, Klaus A product version of a variable metric method and its convergence properties. **80c:65141**

Shanno, David F. Conjugate gradient methods with inexact searches. **80d:65082**

On the convergence of a new conjugate gradient algorithm. **80b:65087**

Skokov, V. A. *See* **Poljak, B. T., 80c:65139**

Sloboda, Fridrich An imperfect conjugate direction method of the Gaussian type for minimization. **80h:65041**

Spedicato, E. On a conjecture of Dixon and other topics in variable metric methods. **80b:65088**

Stassinopoulos, G. I. (*with* Vinter, R. B.) Conditions for convergence of solutions in the computation of optimal controls. **80h:65042**

Storey, Colin On orthogonal trajectories and optimization. **80c:65142**

Strodiot, Jean-Jacques *See* **Nguyen, V. Hien, 80d:65081**

Strongin, R. G. ★Численные методы в многоэкстремальных задачах

(информационно-статистические алгоритмы). (Russian) [Numerical methods in multi-extremal problems (informational-statistical algorithms)] **80b:65089**

Tamir, Arie Rates of convergence of a one-dimensional search based on interpolating polynomials. **80b:65043**

Tamm, Ebe Minimization of a probability function. (Russian. English and Estonian summaries) **80e:65071**

Tarasov, V. N. *See* **Vasil'ev, L. V., 80g:65077**

Tarasova, V. P. Optimal strategies for seeking the domain of the greatest values for a certain class of functions. (Russian) **80d:65083**

Vasil'ev, F. P. The convergence of a difference method for the solution of the time-optimality problem. (Russian) **80k:65059**

The loaded functional method. (Russian) **80b:65090**

The tangent method. (Russian) **80a:65141**

Vasil'ev, L. V. (*with* Tarasov, V. N.) A method for solving minimax problems. (Russian) **80g:65077**

Vinter, R. B. *See* **Stassinopoulos, G. I., 80b:65042**

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Drjadik, V. K. An error estimate of the polynomial approximation of the solutions of ordinary differential equations. (Russian) **(80b:34010)**
Gabdulhaev, B. G. Optimization of projection methods for the solution of differential equations. (Russian) **(80a:65106)**
Gonzalez, S. (*with* Miele, A.) Sequential gradient-restoration algorithms for optimal control problems with general boundary conditions. **(80b:93074)**
van der Houwen, P. J. (*with* Sommeijer, B. P.; Verwer, J. G.) Comparing time integrators for parabolic equations in two space dimensions with a mixed derivative. **(80c:65185)**
Iserles, Arieh On the generalized Padé approximations to the exponential function. **(80b:41013)**
Kalaba, Robert E. (*with* Zagustin, Elena A.; Meier, George) An initial value method for orthogonal polynomials. **(80a:65060)**
Lin, Eng-Bin Approximate solutions of functional differential equations. **(80g:34073)**
Lotov, A. V. The convergence of methods of numerical approximation of attainability sets for linear differential systems with convex phase constraints. (Russian) **(80d:49029)**
Meier, George *See* **Kalaba, Robert E.; et al., (80a:65060)**
Mel'nik, N. V. *See* **Saryčev, V. A.; et al., (80d:70050)**
Miele, A. *See* **Gonzalez, S., (80b:93074)**
Moffatt, H. K. (*with* Moore, D. W.) The response of Hill's spherical vortex to a small axisymmetric disturbance. **(80a:76018)**
Moore, D. W. *See* **Moffatt, H. K., (80a:76018)**
Nikol'skiĭ, É. V. (*with* Džalilov, D.) A generalized method of variation of constants. (Russian. Tajiki summary) **(80i:34012)**
Raviart, Pierre-Arnaud *See* **Crouzeix, Michel, (80d:65063)** *and* **Crouzeix, Michel, (80f:65063)**
Rosen, Bernard Operator method for the perturbative solution of ordinary differential equations. **(80h:34069)**
Sadykov, H. M. *See* **Derkačev, A. A., (80m:34002)**
Saryčev, V. A. (*with* Sazonov, V. V.; Mel'nik, N. V.) Spatial periodic oscillations of a satellite relative to the center of mass. (Russian) **(80d:70050)**
Sazonov, V. V. *See* **Saryčev, V. A.; et al., (80d:70050)**
Sommeijer, B. P. *See* **van der Houwen, P. J.; et al., (80c:65185)**
Taufer, J. (*with* Vitásek, E.) A-stability and numerical solution of abstract differential equations. **(80k:65050)**
Taylor, James G. Error bounds for the Liouville-Green approximation to initial-value problems. (German and Russian summaries) **(80a:34012)**
Titenskiĭ, M. N. An iteration method for solving parabolic equations. (Russian) **(80j:34082)**
Verwer, J. G. The application of iterated defect correction to the LOD method for parabolic equations. **(80h:65073)**
See also **van der Houwen, P. J.; et al., (80c:65185)**
Vitásek, E. *See* **Taufer, J., (80k:65050)**
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Denzel, B. (*with* Seelig, F. F.) Calculation of separatrices in multistable chemical reaction systems. **80a:65163**
Kirchgraber, Urs On the Stiefel-Baumgarte stabilization procedure. (German summary) **80i:65088**
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Seelig, F. F. *See* **Denzel, B., 80a:65163**
Vanderbauwhede, André L. *See* **Meire, R., 80e:65078**
Wagenführer, E. (*with* Lang, H.) Berechnung des charakteristischen Exponenten der endlichen Hillschen Differentialgleichung durch numerische Integration. (English summary) **80c:65162**

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Baila, K. Error estimates in the substitution of the boundedness condition of the solutions for systems of linear ordinary differential equations with a regular singularity. (Russian) **(80a:34008)**
Bouc, R. (*with* Defilippi, M.; Iooss, Gérard) On a problem of forced nonlinear oscillations. Numerical example of bifurcation into an invariant torus. **(80a:34039)**
Defilippi, M. *See* **Bouc, R.; et al., (80a:34039)**
Iooss, Gérard *See* **Bouc, R.; et al., (80a:34039)**
Itô, Akira Successive subharmonic bifurcations and chaos in a nonlinear Mathieu equation. **(80f:34036)**
Paraĭuk, I. O. One-dimensional Schrödinger equation with an almost periodic potential. (Russian. English summary) **(80a:34026)**

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Abramov, A. A. (*with* Birger, E. S.; Konjuhova, N. B.; Ul'janova, V. I.) Numerical segregation of bounded solutions of systems of ordinary differential equations. (Russian. English summary) **80a:65164**
Agarwal, Ravi P. On periodic solutions of nonlinear second-order differential systems. **80e:65080**
The numerical solution of multipoint boundary value problems. **80f:65086**
Andreev, Andrei S. (*with* Popov, V. A.; Sendov, Blagovest) Some estimates for a numerical solution of a boundary problem for ordinary differential equations of a second order. **80k:65066**
Ascher, U. (*with* Christiansen, J.; Russell, R. D.) A collocation solver for mixed order systems of boundary value problems. **80b:65108**
Athavale, Manohar L. (*with* Wahba, Grace) Determination of an optimal mesh for a collocation-projection method for solving two-point boundary value problems. **80i:65089**
Beyn, Wolf-Jürgen Die Konvergenz der diskreten Greenschen Funktionen beim gewöhnlichen Differenzenverfahren. **80d:65095**
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Bobkov, V. V. Some nonlinear difference methods. (Russian. English summary) **80g:65088**
Bock, H. G. Numerical solution of nonlinear multipoint boundary value problems with applications to optimal control. **80a:65165**
Bohl, Erich (*with* Lorenz, Jens) Inverse monotonicity and difference schemes of higher order. A summary for two-point boundary value problems. **80k:65067**

Böhmer, Klaus ★Discrete Newton methods and iterated defect corrections. II. **80g:65089**

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Burhanov, Š. A. (*with* Gumins'ka, N. O.; Makarov, V. L.; Prikazčikov, V. G.) Exact difference schemes for a fourth order ordinary differential equation. (Russian. English summary) **80a:65166**

Bykov, A. A. (*with* Il'inskiĭ, A. S.) Solution of boundary value problems for linear systems of ordinary differential equations by the method of directed orthogonalization. (Russian) **80g:65090**

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Černyšenko, V. M. (*with* Botolan, M. I.) Solution of a nonlinear differential equation with linear homogeneous multipoint boundary conditions by the Newton-Kantorovič method. (Russian. English summary) **80a:65167**

Chawla, M. M. High-accuracy tridiagonal finite difference approximations for nonlinear two-point boundary value problems. **80b:65109**

(*with* Katti, C. P.) Finite difference methods for two-point boundary value problems involving high order differential equations. **80b:65055**

A sixth-order tridiagonal finite difference method for general non-linear two-point boundary value problems. **80d:65096**

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Cuthill, Elizabeth (*with* Meals, L. Kenton) Application of MACSYMA in the solution of boundary value problems. **80c:65163**

Daute, Claus-Peter Numerische Lösung einer Klasse gewöhnlicher Differentialgleichungen mit freien Randbedingungen. **80l:65090**

Davey, A. On the removal of the singularities from the Riccati method. **80c:65164**

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Kamenskiĭ, A. G. (*with* Kamenskiĭ, G. A.; Myškis, A. D.) Numerical solution of boundary value problems for linear differential equations with deviating argument. (Russian) **80j:65028**

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Keller, Herbert B. (*with* Pereyra, Víctor) Difference methods and deferred corrections for ordinary boundary value problems. **80b:65058**

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Miller, R. E. On consistent finite difference formulae for ordinary differential equations. **80g:65095**

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(*with* Radaeva, V. A.) On the question of a complete estimate of computational error in the orthogonal differential double sweep method. (Russian. English summary) **80g:65096**

Monkewitz, Martin A. Analytic pseudoorthogonalization methods for linear two-point boundary value problems illustrated by the Orr-Sommerfeld equation. (German summary) **80c:65170**

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Cubic spline interpolation and chopping procedure for two-point boundary value problems. **80l:65094**

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Schlop, Alexandru I. On the condition number in the Rayleigh-Ritz method for nonlinear two-point boundary value problems. **80k:65070**

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Seydel, Rüdiger Numerical computation of branch points of ordinary differential equations. **80g:65097**

Shinohara, Yoshitane (*with* Yamamoto, Norio) Galerkin approximations of periodic solution and its period to van der Pol equation. **80a:65178**

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Šlahor, L'udomír On the solution of the de la Vallée Poussin problem by using quasilinearization. **80h:65065**

Stenger, Frank A "sinc-Galerkin" method of solution of boundary value problems. **80b:65112**

Strygina, S. O. A remark on the convergence of the difference method for nonlinear boundary value problems. (Russian) **80b:65113**

Tabidze, G. S. Construction of the solution of a two-point singular boundary value problem by the finite-difference method. (Russian. Georgian and English summaries) **80b:65114**

Ul'janova, V. I. *See* **Abramov, A. A.; et al., 80a:65164**

Usmani, Riaz A. On improving error bounds in the integration of a boundary value problem. **80c:65083**

(*with* Meek, Dereck S.) On the application of a five-band matrix in the numerical solution of a boundary value problem. **80a:65179**

On a connection between an $O(h^6)$ finite difference and a sextic spline solution of a two point boundary value problem. **80b:65066**

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Venkov, G. I. On the question of choosing a numerical algorithm for the solution of a Sturm-Liouville problem. (Bulgarian. Russian and English summaries) **80c:65172**

Vidossich, Giovanni Chaplygin's method is Newton's method. **80a:65100**

Vogt, W. Stabile Differenzenschemata hoher Konvergenzordnung für Randwertprobleme bei Systemen gewöhnlicher Differentialgleichungen. **80f:65095**

Wahba, Grace *See* **Athavale, Manohar L., 80f:65089**

Weinelt, Wilfried (*with* Helmert, Gunter) Iterative Lösung spezieller nichtlinearer Differenzenschemata. **80b:65115**

Weiss, Richard *See* **de Hoog, Frank R., 80a:65057**

Westreich, David (*with* Cahlon, Baruch) Numerical methods for discontinuous linear two-point boundary value problems. **80a:65061**

Wiggins, Kenneth L. *See* **Schmidt, Darrell, 80b:65111**

Yamamoto, Norio *See* **Shinohara, Yoshitane, 80a:65178**

Secondary classifications:

Bagaev, B. M. (*with* Saĭdurov, V. V.) Amélioration de la précision des schémas aux différences-variationnelles pour les équations différentielles avec singularités. **(80d:65086)**

Barrett, K. E. (*with* Demunshi, G.) Nonselfadjoint problems and essential boundary conditions. **(80f:49014)**

Chou, C. C. *See* **Sinha, S. C., (80c:65177)**

Demunshi, G. *See* **Barrett, K. E., (80f:49014)**

Golovač, G. P. Solution of the spectral problem for operator equations that depend linearly on an eigenvalue. (Russian. English summary) **(80j:47017)**

Hersh, Reuben (*with* Kato, Tosio) High-accuracy stable difference schemes for well-posed initial value problems. **(80h:65036)**

Kato, Tosio *See* **Hersh, Reuben, (80h:65036)**

Kazantzis, P. G. Surface fitting of three-dimensional closed solutions of the restricted three-body problem. **(80d:70017)**

Kovač, Ju. I. ★Приближенное интегрирование n-тоеqноĭ zadaqi. (Russian) [Approximate integration of the n-point problem] **(80g:34072)**

Lee, John W. The sign-regularity properties of Green's functions for a special class of mixed boundary-value problems. **(80h:34032)**

Lillington, J. N. (*with* Shepherd, I. M.) Central difference approximations to the heat transport equation. **(80a:80005)**

Macconi, Maria A stabilization procedure by means of shooting methods. (Italian. English summary) **(80g:34010)**

Monastyrnyĭ, P. I. On the theory of the method of invariant imbedding for boundary value problems. (Russian. English summary) **(80a:34028)**

Raefsky, A. *See* **Vemuri, V., (80b:93124)**

Saĭdurov, V. V. *See* **Bagaev, B. M., (80d:65086)**

Şchiop, Alexandru I. ★Analiza unor metode de discretizare. (Romanian) [Analysis of some discretization methods] **(80g:65004)**

Schwierz, K.-P. Existenz und Eindeutigkeit der Görtler-Funktionen. **(80a:76026)**

Shepherd, I. M. *See* **Lillington, J. N., (80a:80005)**

Sinha, S. C. (*with* Chou, C. C.) Approximate eigenvalues for systems with variable parameters. **(80c:65177)**

Usmani, Riaz A. A uniqueness theorem for a boundary value problem. **(80j:34018)**

Velikiĭ, A. P. Asymptotic approach to the transfer of boundary conditions for systems of linear ordinary differential equations. (Russian) **(80d:34019)**

Vemuri, V. (*with* Raefsky, A.) On a method of solving sensitive boundary value problems. **(80b:93124)**

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Antia, H. M. Finite-difference method for generalized eigenvalue problem in ordinary differential equations. **80c:65173**

Bailey, Paul B. (*with* Gordon, M. K.; Shampine, Lawrence F.) Automatic solution of the Sturm-Liouville problem. **80a:65181**

A slightly modified Prüfer transformation useful for calculating Sturm-Liouville eigenvalues. **80a:65182**

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Kurtz, Larry (*with* Weinman, David) Eigenvalue estimates for a Sturm-Liouville problem. **80c:65175**

Kuznecov, Ju. A. (*with* Sorokin, S. B.) The method of two-sided approximations in eigenvalue problems. (Russian) **80m:65062**

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Ng, B. S. (*with* Reid, W. H.) An initial value method for eigenvalue problems using compound matrices. **80c:65176**

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Blankenbecler, Richard *See* **Richardson, John L., (80d:81015)**

Carver, M. B. Efficient integration over discontinuities in ordinary differential equation simulations. **(80c:65045)**

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Huang, Tian Yi (*with* Ding, Hua) Stability of numerical methods as applied to circular motion. (Chinese. English summary) **(80e:70015)**

LaBudde, Robert A. (*with* Greenspan, Donald) Discrete mechanics for anisotropic potentials. **(80e:70018)**

Lambert, J. D. Frequency fitting in the numerical solution of ordinary differential equations. **(80c:65151)**

Reginska, Teresa Approximation of eigenvalues for a class of differential problems on an infinite interval. (Polish) **(80h:34028)**

Approximation of eigenvalues of nonselfadjoint problems on an infinite interval. (Polish) **(80k:34021)**

Richardson, John L. (*with* Blankenbecler, Richard) Moment recursions and the Schrödinger problem. **(80d:81015)**

Venkov, G. I. On the question of choosing a numerical algorithm for the solution of a Sturm-Liouville problem. (Bulgarian. Russian and English summaries) **(80c:65172)**

Zahar, R. V. M. Recurrence techniques for a differential eigenvalue problem. **(80h:34031)**

65L20 Stability of numerical methods

65L99 None of the above, but in this section

Andrus, J. F. Numerical solution of systems of ordinary differential equations separated into subsystems. **80d:65100**

Barry, Marian R. (*with* Boyce, William E.) Numerical solution of a class of random boundary value problems. **80f:65091**

Boyce, William E. *See* **Barry, Marian R., 80f:65091**

Brown, R. Leonard Stability of sequences generated by nonlinear differential systems. **80f:65092**

Burim, V. M. *See* **Mihalevič, G. A., 80a:65187**

Campbell, J. A. Two classes of special functions for the phase-integral approximation. **80d:65101**

Chang, Y. F. (*with* Fauss, John; Prieto, Manuel; Corliss, George F.) Convergence analysis of compound Taylor series. **80h:65068**

Corliss, George F. Integrating ODE's along paths on Riemann surfaces. **80f:65093**

See also **Chang, Y. F.; et al., 80h:65068**

Cygankova, L. A. *See* **Garaščenko, F. G., 80a:65185**

Deprit, André (*with* Schmidt, Dieter S.) Exact coefficients of the limit cycle in van der Pol's equation. **80c:65084**

Fauss, John *See* **Chang, Y. F.; et al., 80h:65068**

Finin, G. S. *See* **Valičev, K. G., 80a:65192**

Gaponenko, Ju. L. The coordinated approximation method for the solution of nonlinear differential equations. (Russian. English summary) **80b:65116**

Garaščenko, F. G. (*with* Cygankova, L. A.) Numerical procedures for the calculation of the practical stability of linear systems with lag. (Russian. English summary) **80a:65185**

Gregory, John (*with* Wilkerson, Ralph) New numerical methods for symmetric differential equations, quadratic extremal problems, and banded matrices; the second order problem. **80h:65069**

Hald, Ole H. Numerical solution of the Gel'fand-Levitan equation. **80h:65070**

Hsü, In Ding On the existence of nonlocal, periodic solutions for a fourth-order system. **80b:65117**

Ibidapo-Obe, O. A Picard algorithm for functional differential equations with monotone retardations. **80k:65074**

Janenko, N. N. *See* **Liseĭkin, V. D., 80g:65099**

Krogh, Fred T. Recurrence relations for computing with modified divided differences. **80f:65094**

Lam, C. F. (*with* Pedersen, J.) Solving large sets of differential equations describing queueing systems with the aid of a dynamic allocation algorithm. **80a:65186**

Liselkin, V. D. (*with* Janenko, N. N.) The selection of optimal difference grids. (Russian) **80g:65099**

Mangel, Marc Fluctuations in systems with multiple steady states. Application to Lanchester equations. **80g:65100**

Mihalevič, G. A. (*with* Burim, V. M.) The convergence of the approximate method for solving differential and integral equations with the applications of Walsh series. (Russian. English summary) **80a:65187**

Mikolás, M. (*with* Sebestyén, L.) A new approximate method for solving some ordinary nonlinear differential equations of higher order. **80c:65179**

(Mitropol'skiĭ, Ju. O.) *See* **Samoĭlenko, A. M.; et al., 80h:65075**

Ortiz, E. L. On the numerical solution of nonlinear and functional differential equations with the tau method. **80c:65180**

Pasenčenko, Ju. A. Numerical analytic methods for the construction of periodic solutions. (Russian. English summary) **80a:65188**

Pedersen, J. *See* **Lam, C. F., 80a:65186**

Prieto, Manuel *See* **Chang, Y. F.; et al., 80h:65068**

Razzaghi, M. A computational solution for a matrix Riccati differential equation. **80e:65085**

Rigal, Alain Convergence and optimization of successive overrelaxation for linear systems of equations with complex eigenvalues. **80h:65071**

Ronto, N. I. *See* **Samoĭlenko, A. M., 80k:65075**

Samoĭlenko, A. M. (*with* Ronto, N. I.) ★Numerical-analytic methods of investigating periodic solutions. **80k:65075**

Schmidt, Dieter S. *See* **Deprit, André, 80e:65084**

Schroll, J. Winkelstabile Mehrschrittverfahren hoher Ordnung. **80a:65189**

Sebestyén, L. *See* **Mikolás, M., 80c:65179**

Sergeev, V. S. A method for obtaining estimates for regions of attraction with the aid of Ljapunov functions constructed by a numerical method. (Russian) **80d:65102**

Sinjavs'kiĭ, M. I. Finding the singular points of the solution of the second Painlevé equation by means of power series. (Russian. English summary) **80a:65190**

(Šokurov, Vladimir) *See* **Samoĭlenko, A. M.; et al., 80k:65075**

Tavernini, Lucio The approximate solution of Volterra differential systems with state-dependent time lags. **80a:65191**

Valčev, K. G. (*with* Finin, G. S.) Numerical solution of Riccati's matrix equation. (Russian. English summary) **80a:65192**

White, R. B. An interactive code for solving differential equations using phase integral methods. **80c:65181**

Wilkerson, Ralph *See* **Gregory, John, 80h:65069**

Ziv, A. D. An a posteriori estimate of the inverse operator for a second order differential equation with degeneration. (Russian) **80c:65182**

Secondary classifications:

Anderson, L. R. *See* **O'Malley, R. E., Jr., (80m:34050)**

Andriuičenka, J. The exactness of the solution of the inverse problem for differential equations. (Russian. English and Lithuanian summaries) **80b:35139**

Bagaev, B. M. (*with* Saĭdurov, V. V.) Increasing the exactness of variational-difference solutions of differential problems with singularities. (Russian) **80g:65060**

Bančev, V. C. On minimization of functions by generalized methods of integrating ordinary differential equations. (Russian) **80j:65024**

Casati, Giulio (*with* Čirikov, Boris V.; Izraĭlev, F. M.; Ford, Joseph) Stochastic behavior of a quantum pendulum under a periodic perturbation. **80k:81013**

Čirikov, Boris V. *See* **Casati, Giulio; et al., (80k:81013)**

Curry, James H. (*with* Yorke, James A.) A transition from Hopf bifurcation to chaos: computer experiments with maps on $\mathbb{R}^2$. **80d:58050**

Dennis, S. C. R. (*with* Hudson, J. D.) Accurate representations of partial differential equations by finite-difference schemes. **80b:65145**

Džalilov, D. *See* **Nikol'skiĭ, È. V., (80j:34013)**

Edelen, Dominic G. B. Globally convergent differential procedures for solving nonlinear systems of equations. **80b:65059**

Ford, Joseph *See* **Casati, Giulio; et al., (80k:81013)**

Franke, John E. (*with* Selgrade, James F.) A computer method for verification of asymptotically stable periodic orbits. **80b:34053**

Garaščenko, F. G. (*with* Harčenko, I. I.) The problem of numerical solution of the optimal control in relay systems. (Russian. English summary) **80c:93057**

Golosov, Ju. I. (*with* Punienė, J.) Choice of discretization step in numerical modeling of a continuous-time filtration scheme. (Russian. Lithuanian summary) **80c:76052**

Harčenko, I. I. *See* **Garaščenko, F. G., (80c:93057)**

Helfand, E. Numerical integration of stochastic differential equations. **80m:65092**

Hudson, J. D. *See* **Dennis, S. C. R., (80b:65145)**

Il'in, V. P. (*with* Kuznecov, Ju. A.) Iterative methods in numerical solution of differential equations. **80e:65045**

Izraĭlev, F. M. *See* **Casati, Giulio; et al., (80k:81013)**

Klee, K.-D. Zur Berechnung grosser viskoplastischer Formänderungen. **80i:73029**

Kubíček, Milan (*with* Marek, Miloš) Evaluation of limit and bifurcation points for algebraic equations and nonlinear boundary-value problems. **80d:65055**

Küpper, Tassilo Einschliessungsaussagen bei Differentialoperatoren zweiter Ordnung durch punktweise Ungleichungen. (English summary) **80a:65108**

Kuznecov, Ju. A. *See* **Il'in, V. P., (80e:65045)**

Marek, Miloš *See* **Kubíček, Milan, (80d:65055)**

Melvin, Peter J. The phase-shifting limit cycles of the van der Pol equation. **80d:34035**

Nagashima, Tomomasa *See* **Shimada, Ippei, (80k:58077)**

Ng, Edward W. A general algorithm for the solution of Kepler's equation for elliptic orbits. **80m:70007**

Nikol'skiĭ, È. V. (*with* Džalilov, D.) Exact and approximate general solution of a second-order ordinary linear differential equation. (Russian. Tajiki summary) **80j:34013**

Nixdorff, K. An application to the differential equations of the sound ray. **80d:76079**

O'Malley, R. E., Jr. (*with* Anderson, L. R.) Singular perturbations, order reduction, and decoupling of large scale systems. **80m:34050**

Punienė, J. *See* **Golosov, Ju. I., (80c:76052)**

Rao, C. Radhakrishna Numerical solutions of Lotka-Volterra equations with stochastic approximations. **80b:92035**

Razzaghi, M. A computational solution for a matrix Riccati differential equation. **80e:65085**

Riganti, Riccardo Subharmonic solutions of the Duffing equation with large non-linearity. (French and German summaries) **80d:34050**

Saĭdurov, V. V. *See* **Bagaev, B. M., (80g:65060)**

Selgrade, James F. *See* **Franke, John E., (80b:34053)**

Shampine, Lawrence F. Solving ODE's with discrete data in SPEAKEASY. **80c:65006**

Shimada, Ippei (*with* Nagashima, Tomomasa) A numerical approach to ergodic problem of dissipative dynamical systems. **80k:58077**

Shipsey, Edward J. Approximation method for molecular collisions in the turning point region. **80f:82014**

Sturz, I. Approximate integration of some special differential equations. (Romanian. French summary) **80j:34014**

Štykan, A. B. A generalization of the geometric representation of differential equations and methods of solution based on it. (Russian) **80j:34016**

Tkačenko, O. Ì. Some possibilities for the reduction of round-off errors in the integration of ordinary differential equations. (Russian) **80c:65103**

Vasil'ev, N. N. Determining singular points of the function of distance between points of Keplerian orbits. (Russian. English summary) **80c:70015**

Yorke, James A. *See* **Curry, James H., (80d:58050)**

65Mxx Partial differential equations, initial value problems

Secondary classifications:

Winther, Ragnar Initial value methods for parabolic control problems. **80k:65060**

65M05 Derivation of finite difference approximations

Aharbanel, Saul (*with* Gottlieb, David) Stability of two-dimensional initial-boundary value problems using leap-frog type schemes. **80j:65030**

Agapov, A. V. (*with* Kolosov, B. I.) Generalization of the splitting of operators of diffusion type on a class of nonregular difference schemes in the method of variable directions. (Russian) **80e:65086**

Bramble, James H. Discrete methods for parabolic equations with time-dependent coefficients. **80m:65063**

Gottlieb, David *See* **Aharbanel, Saul, 80j:65030**

Gustafsson, Bertil (*with* Kreiss, Heinz-Otto) Boundary conditions for time-dependent problems with an artificial boundary. **80i:65096**

Holodov, A. S. Construction of difference schemes with a positive approximation for equations of hyperbolic type. (Russian) **80c:65183**

Ikeda, Tsutomu (*with* Nakagawa, Tomoyasu) On the SHASTA FCT algorithm for the equation $\partial\rho/\partial t+(\partial/\partial x)(v(\rho)\,\rho)=0$. **80i:65097**

Kolosov, B. I. *See* **Agapov, A. V., 80e:65086**

Kossmann, H. Boundary-value technique for the numerical solution of periodic parabolic problems. **80b:65118**

Kreiss, Heinz-Otto *See* **Gustafsson, Bertil, 80i:65096**

Nakagawa, Tomoyasu *See* **Ikeda, Tsutomu, 80i:65097**

Ostermann, A. Hermitesche Einschrittverfahren für charakteristische Anfangswertaufgaben mit der Differentialgleichung $u_{xy}=f(x,y,u,u_x,u_y)$. **80a:65193**

Pala, M. M. (*with* Spano, P.) A cubic spline technique for a parabolic equation of higher than the second order. (Italian summary) **80a:65194**

Rasulov, M. A. Investigation of the convergence of the grid method for problems of nonlinear heat conduction with absorption (Cauchy problem). (Russian. Azerbaijani and English summaries) **80m:35037**

Spano, P. *See* **Pala, M. M., 80a:65194**

Sunouchi, Haruo *See* **Suzuki, Fukuzō, 80i:65095**

Suzuki, Fukuzō (*with* Sunouchi, Haruo) Local perturbations of difference approximations for hyperbolic equations. **80i:65095**

Secondary classifications:

Ansorge, Rainer ★Differenzenapproximationen partieller Anfangswertaufgaben. **(80f:65001)**

Barron, Ronald M. Oscillating airfoils. I. Wedges of arbitrary thickness in supersonic and hypersonic flow. **80b:76020**

Cahlon, Baruch On the initial value problem for a certain partial differential equation. **(80e:35034)**

Gorenflo, Rudolf Conservative difference schemes for diffusion problems. **80i:65138**

Hedstrom, G. W. The Galerkin method based on Hermite cubics. **80i:65116**

Janenko, N. N. (*with* Lisseikin, V. D.; Kovenja, V. M.) The method of the solution of gas dynamical problems in moving meshes. **80g:76037**

Kovenja, V. M. *See* **Janenko, N. N.; et al., (80g:76037)**

Kowalski, J. A difference method for the solution of a linear differential equation with a discontinuous coefficient. II. (Russian) **80b:65120**

Lisseikin, V. D. *See* **Janenko, N. N.; et al., (80g:76037)**

Moretti, Gino The λ-scheme. **(80j:76045)**

Rasulov, M. A. Investigation of the convergence of the grid method for problems of nonlinear heat conduction with absorption (Cauchy problem). (Russian. Azerbaijani and English summaries) **(80m:35037)**

65M10 Stability and convergence of difference methods

Ardeljan, N. V. Stability of difference schemes for multidimensional equations of acoustics. (Russian) **80f:65096**

Beam, Richard M. *See* **Warming, R. F., 80h:65072**

Burns, Anne M. A necessary condition for the stability of a difference approximation to a hyperbolic system of partial differential equations. **80a:65195**

Douglis, Avron An approximate layering method for multidimensional nonlinear parabolic systems of a certain type. **80f:65098**

Diakonov, K. B. On the investigation of stability in C of two-layer difference schemes of the fractional step method. (Russian) **80d:65103**

Goldberg, Moshe (*with* Tadmor, Eitan) Scheme-independent stability criteria for difference approximations of hyperbolic initial-boundary value problems. I. **80a:65196**

Jones, Everett Stability analysis for MacCormack's time-splitting technique applied to a model conduction problem. **80b:65119**

Kowalski, J. A difference method for the solution of a linear differential equation with a discontinuous coefficient. II. (Russian) **80b:65120**

Kreiss, Heinz-Otto ★Numerical methods for solving time-dependent problems for partial differential equations. **80f:65097**

Kuznecov, N. N. Finite-difference methods for the solution of a first-order multidimensional quasilinear equation in a class of discontinuous functions. (Russian) **80b:65121**

(*with* Vololin, S. A.) Stability of a class of implicit finite-difference schemes. (Russian) **80b:65122**

Majda, Andrew (*with* McDonough, James; Osher, Stanley) The Fourier method for nonsmooth initial data. **80a:65197**

(*with* Osher, Stanley) A systematic approach for correcting nonlinear instabilities. The Lax-Wendroff scheme for scalar conservation laws. **80g:65101**

McDonough, James *See* **Majda, Andrew; et al., 80a:65197**

Mock, M. S. Some higher order difference schemes enforcing an entropy inequality. **80a:65198**

Osher, Stanley *See* **Majda, Andrew; et al., 80a:65197** *and* **Majda, Andrew, 80g:65101**

Peten'ko, V. O. A difference solution of the Cauchy problem for a class of systems that are parabolic in the sense of G. E. Šilov. (Russian) **80f:65098**

le Roux, Alain Yves Convergence d'un schéma quasi d'ordre deux pour une équation quasi linéaire du premier ordre. (English summary) **80k:65076**

Tadmor, Eitan *See* **Goldberg, Moshe, 80a:65196**

Voigt, Alexander The method of lines for nonlinear parabolic differential equations with mixed derivatives. **80e:65087**

Vololin, S. A. A class of monotone finite difference approximations of a first-order quasilinear differential equation. (Russian) **80f:65099**

See also **Kuznecov, N. N., 80b:65122**

Warming, R. F. (*with* Beam, Richard M.) An extension of A-stability to alternating direction implicit methods. **80h:65072**

Zlotnik, A. A. Estimate of the convergence rate for a projection-difference scheme for a one-dimensional nonstationary diffusion equation. (Russian) **80f:65099**

Secondary classifications:

Abarbanel, Saul (*with* Gottlieb, David) Stability of two-dimensional initial-boundary value problems using leap-frog type schemes. **80j:65030**

Dahlquist, Germund Positive functions and some applications to stability questions for numerical methods. **80e:65118**

Gottlieb, David *See* **Abarbanel, Saul, 80j:65030**

Guo, Ben Yu Two difference schemes for wave equations coupled with heat conduction. (Chinese) **80b:65124**

Herah, Reuben (*with* Kato, Tosio) High-accuracy stable difference schemes for well-posed initial value problems. **80h:65036**

Ikeda, Tsutomu (*with* Nakagawa, Tomoyasu) On the SHASTA FCT algorithm for the equation $\partial\rho/\partial t+(\partial/\partial x)(v(\rho)\,\rho)=0$. **80i:65097**

Kato, Tosio *See* **Herah, Reuben, 80h:65036**

Kreth, H. Time-discretisations for nonlinear evolution equations. **80b:65079**

Nakagawa, Tomoyasu *See* **Ikeda, Tsutomu, 80i:65097**

Vabiščevič, I. I. On the solutions of the Cauchy problem for the Laplace equation in a doubly connected domain. (Russian) **80e:35018**

65M15 Error bounds

Ewing, Richard E. (*with* Falk, Richard S.) Numerical approximation of a Cauchy problem for a parabolic partial differential equation. **80g:65102**

Falk, Richard S. *See* **Ewing, Richard E., 80g:65102**

Frjazinov, I. V. Schemes of variable directions for a parabolic equation with mixed derivatives in an arbitrary domain. (Russian) **80e:65088**

Kuznecov, N. N. Weak solutions of first-order quasilinear equations and numerical methods for their computation. (Russian) **80b:65123**

Secondary classifications:

Axelsson, Owe On the numerical solution of nonlinear partial differential equations on divergence form. **80d:65113**

Thomée, Vidar Some interior estimates for semidiscrete Galerkin approximations for parabolic equations. **80d:65123**

65M20 Method of lines

Čebotareva, L. M. *See* **Sobolevskiĭ, P. E., 80a:65200**

Golaido, S. I. The method of lines in nonlinear heat problems. (Russian) **80c:65184**

Guo, Ben Yu Two difference schemes for wave equations coupled with heat conduction. (Chinese) **80b:65124**

Omurov, E. O. Solution of a certain differential equation by the method of lines. (Russian) **80a:65199**

Sobolevskiĭ, P. E. (*with* Čebotareva, L. M.) The method of lines for the approximate solution of mixed problems for a one-dimensional hyperbolic equation. (Russian) **80a:65200**

Verwer, J. G. The application of iterated defect correction to the LOD method for parabolic equations. **80h:65073**

Secondary classifications:

Kačur, Josef Method of Rothe and nonlinear parabolic boundary value problems of arbitrary order. **(80a:35061)**

65M25 Method of characteristics

Krupnov, Ju. P. The convergence of the iteration process for a scheme of second order accuracy. (Russian. English summary) **80a:65201**

Secondary classifications:

Hausmann, Dirk (*with* Körte, Bernhard) Oracle algorithms for fixed-point problems—an axiomatic approach. **(80c:65124)**

Körte, Bernhard *See* **Hausmann, Dirk, (80c:65124)**

65M30 Improperly posed problems

65M99 None of the above, but in this section

Dinumbekova, S. S. On the approximate solution of the initial problem for semi-explicit nonlinear integro-partial differential equations. (Russian. Kazakh summary) **80f:65100**

Gajewski, Herbert Zur globalen Konvergenz eines modifizierten Kato-Fujita-Iterationsverfahrens. (English and Russian summaries) **80d:65104**

van der Houwen, P. J. (*with* Sommeijer, B. P.; Verwer, J. G.) Comparing time integrators for parabolic equations in two space dimensions with a mixed derivative. **80c:65185**

Le Roux, Marie-Noëlle Semidiscretization in time for parabolic problems. **80f:65101**

Neundorf, W. (*with* Schoenefeld, Re.) Stable iterative hybrid method for the solution of weak nonlinear parabolic differential equations. **80m:65064**

Schoenefeld, Re. *See* **Neundorf, W., 80m:65064**

Sommeijer, B. P. *See* **van der Houwen, P. J.; et al., 80c:65185**

Titov, S. S. Solution of periodic Cauchy problems using special trigonometric series. (Russian) **80f:65100**

Verwer, J. G. *See* **van der Houwen, P. J.; et al., 80c:65185**

Wirz, Hans Jochen On iterative solution methods for systems of partial differential equations. **80c:65186**

Secondary classifications:

Ansorge, Rainer Irregularities in the numerical treatment of nonlinear initial value problems. **(80c:65144)**

Bolley, Catherine (*with* Crouzeix, Michel) Conservation de la positivité lors de la discrétisation des problèmes d'évolution paraboliques. **(80h:35070)**

Crouzeix, Michel *See* **Bolley, Catherine, (80h:35070)**

Gadžiev, A. D. (*with* Pisarev, V. N.) "ROMB": an implicit finite-difference method for the numerical solution of equations of gas dynamics with heat conduction. (Russian) **(80m:76062)**

Gerhold, Diethard Numerische Lösung eines ebenen Anfangswertproblems aus dem Gebiet der Wasserwellen. (English summary) **(80j:76006)**

Peil, Jürgen Mathematisch-numerische Verfahren zur Analyse von Schwingungsvorgängen. (English summary) **(80c:92039)**

Pisarev, V. N. *See* **Gadžiev, A. D., (80m:76062)**

65Nxx Partial differential equations, boundary value problems

Secondary classifications:

Nédélec, J.-C. Numerical approximations for some singular integral equations. **(80g:65130)**

Olson, Mervyn D. *See* **Tuann, Shih Yu, (80g:76023)**

(Parter, Seymour V.) *See* **Numerical methods for partial differential equations, (80k:65008)**

Tuann, Shih Yu (*with* Olson, Mervyn D.) Review of computing methods for recirculating flows. **(80g:76023)**

Madison, Wis. *See* **Numerical methods for partial differential equations, (80k:65008)**

Numerical methods for partial differential equations ★Numerical methods for partial differential equations. **(80k:65008)**

Partial differential equations *See* **Numerical methods for partial differential equations, (80k:65008)**

Seminar:

Numerical Methods for Partial Differential Equations *See* **Numerical methods for partial differential equations, (80k:65008)**

65N05 Derivation of finite difference approximations

Ball, R. E. *See* **Gawain, T. H., 80a:65202**

Berikelašvili, G. K. Uniformly convergent three-layered schemes of high accuracy for a multidimensional heat equation. (Russian. Georgian and English summaries) **80e:65089**

Crank, J. (*with* Furzeland, R. M.) The numerical solution of elliptic and parabolic partial differential equations with boundary singularities. **80e:65090**

Cushman, John H. Difference schemes or element schemes? **80m:65065**

Davis, R. T. *See* **Srivastava, B. N.; et al., 80e:65092**

Dem'janovič, Ju. K. On the stability and the time of computations in the variational difference method. (Russian) **80k:65077**

Elenin, G. G. *See* **Gavriljuk, I. P.; et al., 80m:65066**

Favorskiĭ, A. P. *See* **Korišja, T. K.; et al., 80e:65091**

Frank, Reinhard (*with* Hertling, Jörg) Die Anwendung der iterierten Defektkorrektur auf das Dirichletproblem. **80h:65074**

Furzeland, R. M. *See* **Crank, J., 80e:65090**
Gavriljuk, I. P. (*with* Elenin, G. G.; Zdorenko, Ju. I.; Zmitrenko, N. V.; Makarov, V. L.; Šan'ko, I. M.) A difference scheme with an exact spectrum for a quasilinear heat equation. (Russian) **80m:65066**
Gawain, T. H. (*with* Ball, R. E.) Improved finite difference formulas for boundary value problems. **80a:65202**
Gluzenkov, V. D. A difference scheme for a degenerate quasilinear elliptic equation. (Russian) **80i:65101**
Hertling, Jörg *See* **Frank, Reinhard, 80h:65074**
Hoffmann, Karl-Heinz Monotonie bei Zweiphasen-Stefan-Problemen. (English summary) **80b:65125**
Janenko, N. N. (*with* Šokin, Ju. I.; Urusov, A. I.) Difference schemes in an arbitrary curvilinear coordinate system. (Russian) **80a:65203**
Khalil, Hatem M. Computer generation of difference approximations. **80c:65187**
Kolosov, B. I. The iteration-regularization method applied to the construction of stable difference schemes of higher order accuracy. (Russian) **80g:65103**
Korišlja, T. K. (*with* Tiškin, V. F.; Favorskiĭ, A. P.; Šalkov, M. Ju.) A variational approach to the construction of difference schemes for the heat equation on curvilinear grids. (Russian. English summary) **80e:65091**
Lau, P. C. M. Curvilinear finite difference method for three-dimensional potential problems. **80f:65102**
Lerat, Alain Une classe de schémas aux différences implicites pour les systèmes hyperboliques de lois de conservation. (English summary) **80d:65105**
Lynch, Robert E. (*with* Rice, John R.) High accuracy finite difference approximation to solutions of elliptic partial differential equations. **80a:65204**
Majda, Andrew (*with* Osher, Stanley) Numerical viscosity and the entropy condition. **80j:65031**
Makarov, V. L. *See* **Gavriljuk, I. P.; et al., 80m:65066**
Osher, Stanley *See* **Majda, Andrew, 80j:65031**
Peyret, Roger Une méthode aux différences finies de haute précision pour la résolution des équations de Navier-Stokes stationnaires. (English summary) **80a:65205**
Rice, John R. *See* **Lynch, Robert E., 80a:65204**
Šan'ko, I. M. *See* **Gavriljuk, I. P.; et al., 80m:65066**
Šalkov, M. Ju. *See* **Korišlja, T. K.; et al., 80e:65091**
Schonberg, Hermann Monotonically convergent iterative methods for nonlinear discrete elliptic boundary value problems. **80a:65206**
Skirmantas, R. B. Difference schemes of high order accuracy for some weakly nonlinear elliptic equations. (Russian. Lithuanian and English summaries) **80a:65207**
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Strelkov, N. A. Iterative methods for the solution of projection-difference analogues of boundary value problems for fourth-order linear and quasilinear equations. (Russian) **80i:65102**
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Houstis, E. N. (*with* Lynch, Robert E.; Rice, John R.) Evaluation of numerical methods for elliptic partial differential equations. **(80g:65119)**
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65N10 Stability and convergence of difference methods

Abraĭn, V. N. (*with* Matus, P. P.) Difference schemes for nonlinear hyperbolic equations with piecewise-smooth solutions. I. (Russian) **80c:65189**
(*with* Lis, V. I.) Difference schemes for quasilinear nonstationary problems. II. (Russian) **80f:65104**
(*with* Curko, V. A.) Difference schemes for parabolic equations with a nonlinear degeneracy. II. (Russian) **80k:65078**
Ardeljan, N. V. (*with* Gulin, A. V.) Establishment of the stability of difference schemes for the equations of acoustics. (Russian. English summary) **80f:65105**
Baumeister, Johann Ein Iterationsverfahren zur Lösung eines parabolischen freien Randwertproblems. (English summary) **80k:65079**
di Benedetto, Emmanuele *See* **Borgioli, Giovanni; et al., 80a:65208**
Berezin, B. I. Estimate of the convergence rate of a difference scheme for a Poisson equation with piecewise continuous right-hand side. (Russian) **80f:65106**
Berikelashvili, G. K. A two-layer scheme of a higher order of accuracy for the solution of the third boundary value problem for the p-dimensional heat equation. (Russian. Georgian and English summaries) **80m:65068**
Borgioli, Giovanni (*with* di Benedetto, Emmanuele; Ughi, Maura) Stefan problems with nonlinear boundary conditions: the polygonal method. (German and Russian summaries) **80a:65208**
Ch'oe, Yŏng Ho An approximation method of solution for an elliptic system of partial differential equations. (Korean. English summary) **80a:65209**
Curko, V. A. *See* **Abraĭn, V. N., 80k:65078**
Dryja, M. The correctness and convergence of difference schemes with a splitting operator for quasilinear parabolic equations in convex domains. (Russian) **80d:65106**
Fái, L. *See* **Molnárka, D.; et al., 80b:65126**
Farzan, R. H. *See* **Molnárka, D.; et al., 80b:65126**
Gulin, A. V. *See* **Ardeljan, N. V., 80f:65105**
Hoff, David A finite difference scheme for a system of two conservation laws with artificial viscosity. **80k:65080**
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Schumann, Rainer (*with* Zeidler, Eberhard) The finite difference method for quasilinear elliptic equations of order $2m$. **80d:65107**
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Volkov, E. A. An efficient method of cubic networks for solving the Laplace equation on a parallelepiped under discontinuous boundary conditions. (Russian) **80m:65072**
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Gulin, A. V. (*with* Frjazinov, I. V.) The exactness of schemes of variable directions for the heat equation in an arbitrary domain. (Russian) **(80c:65192)**
Hlaváček, Ivan Dual finite element analysis for some unilateral boundary value problems. **(80i:65118)**
Maslovskaja, L. V. The convergence of variational-difference methods for a nonlinear boundary value problem of the theory of flexible plates. (Russian) **(80f:73059)**
Styś, Tadeusz On a maximum principle for nonlinear equations. **(80b:65065)**
Voigt, Alexander The method of lines for nonlinear parabolic differential equations with mixed derivatives. **(80e:65087)**

65N15 Error bounds

Brady, Stephen W. (*with* Elcrat, Alan R.) Some results on a posteriori error estimation for approximate solutions of second order elliptic problems. **80m:65073**
Elcrat, Alan R. *See* **Brady, Stephen W., 80m:65073**
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65N20 Solution of difference equations [See also 65F10.]

Avdelas, George (*with* Galanis, S.; Hadjidimos, Apostolos) Three-level extrapolated alternating direction implicit (E.A.D.I.) methods for the numerical solution of two-dimensional second-order elliptic problems. **80m:65074**

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Haverkamp, Richard Eine Bemerkung zur Lösung der diskretisierten zweiten Randwertaufgabe der Potentialgleichung. **80c:65193**

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Kobel'kov, G. M. Methods of solving the Navier-Stokes equations. (Russian) **80a:65214**

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Proskurowski, Wlodzimierz Numerical solution of Helmholtz's equation by implicit capacitance matrix methods. **80b:65129**

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Samarskiĭ, A. A. *See* **Nikolaev, E. S.,** **80c:65194**

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Schomberg, Hermann Monotonically convergent iterative methods for nonlinear systems of equations. **80b:65130**

Shieh, A. S. L. Fast Poisson solvers on general two-dimensional regions for the Dirichlet problem. **80d:65110**

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A difference scheme for the solution of an elliptic equation with a small parameter in a region with a curvilinear boundary. (Russian) **80b:65131**

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Arya, J. C. (*with* Lardner, R. W.) Plane shock waves in viscoelastic media displaying cubic elasticity. (**80m:73041**)

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Cheng, Sin I *See* **Shubin, Gregory,** (**80e:76039**)

Ehrlich, Louis W. A marching technique for nonseparable equations. (**80c:65078**)

Epstein, Bernard (*with* Hicks, D. L.) Comparison between two error estimation procedures. (**80h:65099**)

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Hadjidimos, Apostolos *See* **Avdelas, George,** (**80m:65021**)

Hicks, D. L. *See* **Epstein, Bernard,** (**80h:65099**)

Himlč, A. N. (*with* Prikazčikov, V. G.) Accuracy of the integro-interpolation method for the problem of the deflection of a console plate. (Russian. English summary) (**80f:73056**)

Ilan, Almoga Stability of finite difference schemes for the problem of elastic wave propagation in a quarter plane. (**80d:73045**)

Kossmann, H. Boundary-value technique for the numerical solution of periodic parabolic problems. (**80b:65118**)

Kretzschmar, Horst Instationäre Strömung in Rohren veränderlichen Querschnitts. (**80e:76040**)

Kubanskaja, A. P. Construction and estimation of the convergence of a multipoint finite-difference scheme for the problem of the bending of rectangular isotropic plates with freely supported boundaries. (Russian) (**80f:73057**)

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Makarov, V. L. (*with* Skorobagat'ko, A. A.) Solution of boundary value problems for a generalized biharmonic equation in unbounded domains. (Russian. English summary) (**80d:35049**)

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Papatheodorou, Theodore Fast tensor product Poisson solvers for the Dirichlet problem on a rectangle. (French summary) **(80c:65195)**

Peyret, Roger Une méthode aux différences finies de haute précision pour la résolution des équations de Navier-Stokes stationnaires. (English summary) **(80a:65205)**

Prikazčikov, V. G. *See* **Himič, A. N., (80f:73056)**

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Shubin, Gregory (*with* Cheng, Sin I) Gasdynamic modeling and computational accuracy. **(80e:76039)**

Skorobogat'ko, A. A. *See* **Makarov, V. L., (80d:35049)**

Titenkli, M. N. An iteration method for solving parabolic equations. (Russian) **(80j:34082)**

Weadland, Wolfgang ★Elliptic systems in the plane. **(80h:35053)**

65N25 Eigenvalue problems

Algazin, S. D. Calculation of the eigenvalues of the Laplace operator and the numerical solution of the Poisson equation. (Russian) **80m:65077**

(*with* Babenko, K. I.) A numerical algorithm for the solution of the eigenvalue problem for linear differential operators. (Russian) **80d:65112**

See also **Babenko, K. I., 80a:65217**

Avdelas, George (*with* Hadjidimos, Apostolos) Analytical eigenvalue bounds for matrices arising when discretizing the self-adjoint second order elliptic partial differential equations. **80a:65216**

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See also **Algazin, S. D., 80d:65112**

Bezdetnyĭ, B. P. (*with* Gluščenko, A. A.; Dovgiĭ, B. P.) On a numerical solution of the eigenvalue problem for certain nonlinear systems of partial differential equations. (Russian. English summary) **80a:65218**

Builden, P. J. (*with* Norbury, J.) A nonlinear elliptic eigenvalue problem. **80f:65109**

Caricyna, I. V. The penalty method in eigenvalue problems. (Russian) **80c:65198**

Dovgiĭ, B. P. *See* **Bezdetnyĭ, B. P.; et al., 80a:65218**

Embergenov, A. *See* **Ljašenko, Ĭ. M., 80a:65220** *and* **Ljaĭcenko, Ĭ. M., 80b:65133**

Georg, Kurt On the convergence of an inverse iteration method for nonlinear elliptic eigenvalue problems. **80f:65110**

Gibert, Philippe Encadrement numérique des fréquences propres de structures complexes linéaires. (English summary) **80k:65085**

Gluščenko, A. A. *See* **Bezdetnyĭ, B. P.; et al., 80a:65218**

Hadjidimos, Apostolos *See* **Avdelas, George, 80a:65216**

Ivanov, S. A. (*with* Korneev, V. G.) A five-point difference approximation of a biharmonic operator. (Russian) **80a:65219**

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Koista, William G. Eigenvalue approximation by the finite element method: the method of Lagrange multipliers. **80b:65132**

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Ljaĭcenko, Ĭ. M. (*with* Embergenov, A.) Determination of the upper bounds of the eigenvalues of the Laplace operator for an *L*-shaped domain by the method of summary representations. (Russian. English summary) **80a:65220**

(*with* Embergenov, A.) A variational difference method for the solution of the eigenvalue problem for a Laplace operator. (Russian. English summary) **80b:65133**

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65N35 Collocation and related methods

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65N45 Method of contraction of the boundary

65N99 None of the above, but in this section

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65P05 Partial differential equations, miscellaneous problems

Abe, Kanji (*with* Abe, Takashi) Recurrence of initial state of the Korteweg-de Vries equation. **80e:65110**

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Israilov, M. I. (*with* Maksudov, T. S.) Approximate solution of singular integral equations by the iteration method. (Russian) **80g:65129**

Ivanauskas, Feliksas Solution of the Cauchy problem for a system of integro-differential equations. (Russian) **80d:65139**

Izbasarov, B. *See* **Kalaida, O. F., 80f:65156**

Kadubin, V. P. The quadrature-interpolation method of solution of singular integro-differential equations with complex conjugate unknowns. (Russian) **80e:65126**

Kalaida, O. F. (*with* Izbasarov, B.) Solution of integral equations with weak and logarithmic singularity by the method of splitting the domain. (Russian. English summary) **80f:65156**

Keech, Malcolm S. *See* **Baker, Christopher T. H., 80a:65264**

Kung, F. C. (*with* Chen, S. Y.) Solution of integral equations using a set of block pulse functions. **80a:65269**

Lobov, V. V. Solution of a matrix integral equation by the method of successive approximations. (Russian) **80k:65104**

MacCamy, Richard C. (*with* Weiss, Philip) Numerical solution of Volterra integral equations. **80j:65041**

Maksudov, T. S. *See* **Israilov, M. I., 80g:65129**

Malinowski, H. (*with* Smarzewski, R.) A numerical method for solving the Abel integral equation. (Polish summary) **80a:65270**

See also **Smarzewski, R., 80c:65253** *and* **Smarzewski, R., 80h:65108**

Marčenko, L. V. *See* **Nazarenko, T. I., 80k:65106**

Mariak, A. L. *See* **Vainikko, G., 80c:65256**

Marti, J. T. An algorithm for computing minimum norm solutions of Fredholm integral equations of the first kind. **80b:65154**

McKee, S. The analysis of a variable step, variable coefficient linear multistep method for solving a singular integro-differential equation arising from the diffusion of discrete particles in a turbulent fluid. **80c:65249**

Cyclic multistep methods for solving Volterra integro-differential equations. **80k:65105**

Mel'nikova, O. F. (*with* Poljahov, N. N.) Construction of the initial approximation for the solution of the lifting surface integral equation. (Russian. English summary) **80c:65250**

Mihlin, S. G. The method of least squares for multidimensional singular integral equations. (Russian) **80a:65271**

Nazarenko, T. I. (*with* Marčenko, L. V.) An interval method for solving integro-differential equations of Fredholm type. (Russian) **80k:65106**

Nédélec, J.-C. Numerical approximations for some singular integral equations. **80g:65130**

Nelson, Paul, Jr. (*with* Victory, H. Dean, Jr.) Theoretical properties of one-dimensional discrete ordinates. **80b:65155**

Norrie, D. H. *See* **Dang, Duc Q., 80a:65265** *and* **Balasubramanian, R.; et al., 80b:65159**

Pao, C. V. An iterative method for solving a nonstationary radiation diffusion system. (German summary) **80k:65107**

Parezanović, Nedeljko S. Modelling of a Fredholm integral equation by the differential equation method. (Serbo-Croatian. English summary) **80e:65127**

Pitkäranta, Juhani On the differential properties of solutions to Fredholm equations with weakly singular kernels. **80f:65157**

Poljahov, N. N. *See* **Mel'nikova, O. F., 80c:65250**

Poljakov, R. V. The approximate solution of systems of linear integral equations by means of splines. (Russian) **80c:65251**

Application of splines to the solution of systems of integral equations of Hammerstein type. **80e:65128**

Pomp, Andreas Über die Konvergenz des Galerkinschen Verfahrens für Wiener-Hopfsche Integralgleichungen in den Räumen L^p. **80f:65146**

Porath, Günter (*with* Tabbert, Eckhard) Das Tschebyscheffsche Iterationsverfahren für lineare Volterrasche Integralgleichungen zweiter Art. **80b:65156**

Rakotch, E. Improved error estimates for numerical solutions of symmetric integral equations. **80a:65272**

Richter, Gerard R. Superconvergence of piecewise polynomial Galerkin approximations for Fredholm integral equations of the second kind. **80a:65273**

Robinson, Peter D. (*with* Barnsley, Michael F.) Pointwise bivariational bounds on solutions of Fredholm integral equations. **80b:65157**

Romančik, V. S. The numerical solution of some integral equations of the first kind. (Russian) **80b:65158**

Salès, André *See* **Guy, Jean, 80c:65248**

Savelova, T. I. Regularization by means of operators of Fejér type. (Russian) **80a:65274**

Regularization of nonlinear integral equations of convolution type. (Russian) **80c:65252**

Schäfer, Eugen Fehlerabschätzungen für Eigenwertnäherungen nach der Ersatzkernmethode bei Integralgleichungen. (English summary) **80e:65129**

Schneider, C. Numerische Behandlung schwachsingulärer Fredholmscher Integralgleichungen zweiter Art. **80f:65158**

Schwall, E. Diskret kompakte und konsistente Näherungsoperatoren für schwach singuläre Integraloperatoren. **80a:65275**

Smarzewski, R. (*with* Malinowski, H.) Numerical solutions of a class of Abel integral equations. **80c:65253**

(*with* Malinowski, H.) On the numerical solution of an Abel integral equation. (Polish summary) **80h:65108**

See also **Malinowski, H., 80a:65270**

Spence, Alastair Error bounds and estimates for eigenvalues of integral equations. II. **80c:65254**

Steudel, R. Zur iterativen Lösung von nichtlinearen Integrodifferentialgleichungsproblemen. (English and Russian summaries) **80g:65131**

(Stoutemyer, David R.) *See* **Bogen, Richard A., 80k:65102**

Tabbert, Eckhard *See* **Porath, Günter, 80b:65156**

Tammet, H. F. Generalization of the Langevin method for the solution of inverse problems. (Russian. English summary) **80f:65147**

Theocaris, Pericles S. (*with* Ioakimidis, Nikolaos I.) Application of the Gauss, Radau and Lobatto numerical integration rules to the solution of singular integral equations. **80c:65255**

(*with* Tsamasphyros, G. J.) Numerical solution of systems of singular integral equations with variable coefficients. **80f:65148**

(*with* Ioakimidis, Nikolaos I.) A method of numerical solution of Cauchy-type singular integral equations with generalized kernels and arbitrary complex singularities. **80f:65149**

(*with* Chrysakis, A. C.; Ioakimidis, Nikolaos I.) Cauchy-type integrals and integral equations with logarithmic singularities. **80b:65159**

(*with* Ioakimidis, Nikolaos I.) A remark on the numerical solution of singular integral equations and the determination of stress-intensity factors. **80d:65140**

See also **Ioakimidis, Nikolaos I., 80f:65145**

Trahoniotovskaja, R. A. *See* **Arsenin, V. Ja.; et al., 80e:65123**

Tsamasphyros, G. J. *See* **Theocaris, Pericles S., 80f:65148**

Vainikko, G. (*with* Mariak, A. L.) The rate of convergence of the method of discrete ordinates in the problem of radiation transfer. (Russian) **80c:65256**

Victory, H. Dean, Jr. *See* **Nelson, Paul, Jr., 80b:65155**

Voronin, V. V. (*with* Cecoho, V. A.) The collocation method in the solution of integral equations and systems. (Russian) **80b:65160**

de Vries, G. *See* **Balasubramanian, R.; et al., 80b:65150**

Warnock, Robert Lee A nonlinear integral equation from the Ball-Zachariasen model of diffractive scattering: numerical solution near a singularity of the Fréchet derivative. **80h:65109**

Weiss, Philip *See* **MacCamy, Richard C., 80j:65041**

Zagonov, V. P. *See* **Arsenin, V. Ja.; et al., 80e:65123**

Zlatarov, D. P. New approach to the solution of the integral equation of the first kind. **80f:65150**

Zolotarevskiĭ, V. A. The convergence of the collocation method and the method of mechanical quadratures for systems of singular integral equations. (Russian) **80j:65042**

Integral equations *See* **Solution methods for integral equations, 80m:65090**

Solution methods for integral equations ★Solution methods for integral equations. **80m:65090**

Secondary classifications:

Abd-Elal, L. F. An asymptotic expansion for a regularization technique for numerical singular integrals and its application to Volterra integral equations. **(80g:65020)**

Bagishaev, K. N. Numerical solution of the Aleksandrov-Solov'ev integral equations for axially symmetric problems of elasticity theory. (Russian) **(80a:73017)**

Bakanov, S. P. (*with* Roldugin, V. I.) Boundary value problems of the kinetic theory of gases and irreversible thermodynamics. **(80a:82028)**

Bennett, C. Leonard The numerical solution of transient electromagnetic scattering problems. **(80m:78021)**

Bise, J. L. Boundary integral solutions of Laplace's equation. **(80a:65240)**

Bowads, John M. A combined recursive collocation and kernel approximation technique for certain singular Volterra integral equations. **(80h:45020)**

Brunner, Hermann On superconvergence in collocation methods for Abel integral equations. **(80m:45023)**

Burin, V. M. *See* **Mihalevič, G. A., (80a:65187)**

Cabannes, Henri (*with* Gatignol, R.; Leguillon, D.) Mathematical and numerical aspects of discrete kinetic theory. **(80d:82045)**

Chatelin-Laborde, Françoise Numerical computation of the eigenelements of linear integral operators by iterations. **(80a:65117)**

Chawla, M. M. (*with* Kumar, Sheo) Chebyshev series method for the approximate solution of Volterra integral equations with singular kernels. **(80g:45017)**

Cole, R. J. (*with* Spiga, G.) On projection and variational methods in kinetic theory. **(80f:82032)**

Collatz, Lothar Anwendungen der Approximationstheorie auf Probleme mit kontrahierenden und expandierenden Operatoren. **(80i:65062)**

Application of multivariate approximation to the solution of boundary value problems. **(80c:65218)**

Couch, W. E. (*with* Torrence, R. J.) An approximation scheme for scalar waves in a Schwarzschild geometry. **(80a:83024)**

Delves, L. M. *See* **Musa, F. A., (80g:65068)**

De Mey, G. The use of approximate functions for the numerical solution of the Laplace equation by an integral equation. **(80c:65229)**

Falby, W. *See* **Shaw, R. P., (80i:65128)**

Gatignol, R. *See* **Cabannes, Henri; et al., (80d:82045)**

Gautier, M. (*with* Monsion, Michel; Sagaspe, J. P.) Determination of a Volterra kernels representation for a nonlinear physiological system. **(80e:92009)**

Glashoff, Klaus Über die Behandlung inverser Probleme bei streng zeichenfesten Kernen. **(80i:65072)**

Golberg, Michael A. A method of adjoints for solving some ill-posed equations of the first kind. **(80c:65121)**

Gol'dštein, R. V. Application of integral equations to the numerical solution of problems in elasticity and plasticity theory. (Russian) **(80g:73014)**

Gorelov, V. P. (*with* Il'in, V. I.) On the solution of integral equations for radiative transport. (Russian) **(80j:80002)**

Hsu'kin, A. D. Projection-asymptotic methods for the investigation of the Boltzmann equation. (Russian) **(80k:82078)**

Hübner, Otto Zur Numerik der Theodorsenschen Integralgleichung in der konformen Abbildung. **(80f:65037)**

Il'in, V. I. *See* **Gorelov, V. P., (80j:80002)**

Inoue, M. (*with* Kuroumaru, M.; Yamaguchi, Seiichi) A solution of Fredholm integral equation by means of the spline fit approximation. **(80c:76011)**

Ioakimidis, Nikolaos I. (*with* Theocaris, Pericles S.) Numerical determination of a class of generalized stress intensity factors. **(80f:73016)**

Karpov, V. V. Automation of the solution of boundary value problems of mathematical physics by the method of nets. (Russian. English summary) **(80g:65106)**

Konoval'cev, I. V. *See* **Zverev, A. E., (80d:78035)**

Kramarovskiĭ, B. I. Solvability of some systems of extremal-integral equations. (Russian) **(80b:49019)**

Kumar, Sheo *See* **Chawla, M. M., (80g:45017)**

Kuroumaru, M. *See* **Inoue, M.; et al., (80c:76011)**

Kuznecov, Ju. A. Sur la symétrisation des problèmes approchés de la théorie du transport. **(80f:82055)**

Leguillon, D. *See* **Cabannes, Henri; et al., (80d:82045)**

Lejk, R. *See* **Vainikko, G., (80j:45019)**

Lin, Qun Some problems concerning approximate solutions of operator equations. (Chinese. English summary) **(80k:65056)**

Loyalka, S. K. (*with* Petrellis, N.; Storvick, T. S.) Some exact numerical results for the BGK model: Couette, Poiseuille and thermal creep flow between parallel plates. (German summary) **(80j:76047)**

Mattioli, Franco Wave-induced oscillations in harbours of variable depth. **(80a:76012)**

Maystre, D. *See* **Roger, A., (80d:78031)**

Mihalevič, G. A. (*with* Burim, V. M.) The convergence of the approximate method for solving differential and integral equations with the applications of Walsh series. (Russian. English summary) **(80a:65187)**

Mikhin, S. (*with* Vainikko, G.) The Fredholm resolvent and an inversion of matrices dependent on a parameter. (Russian. Estonian and English summaries) **(80c:65072)**

Monsion, Michel *See* **Gautier, M.; et al., (80e:92009)**

Musa, F. A. (*with* Delves, L. M.) On weakly asymptotically diagonal systems. **(80g:65068)**

Oğuztöreli, Mehmet Namık Activities in a one-dimensional continuous neural network. **(80a:92030)**

Petrellis, N. *See* **Loyalka, S. K.; et al., (80j:76047)**

Pokorná, Olga Bemerkungen zu einer Anwendung singulärer Zerlegungen von Matrizen. (English summary) **(80m:65030)**

Politjukov, V. P. A method of solving boundary value problems for nonlinear transport equations. (Russian) **(80j:80008)**

Roger, A. (*with* Maystre, D.) The perfectly conducting grating from the point of view of inverse diffraction. **(80d:78031)**

Roldugin, V. I. *See* **Bakanov, S. P., (80a:82028)**

Sagaspe, J. P. *See* **Gautier, M.; et al., (80e:92009)**

Şchiop, Alexandru I. ★Analiza unor metode de discretizare. (Romanian) [Analysis of some discretization methods] **(80g:65004)**

Shail, R. Some potential problems for slender tori. **(80i:65145)**

Shaw, R. P. (*with* Falby, W.) FEBIE—a combined finite element-boundary integral equation method. **(80i:65128)**

Spiga, G. *See* **Cole, R. J., (80f:82032)**

Sprekels, Jürgen Finite-dimensional cone iteration techniques for superlinear Hammerstein equations. **(80j:45012)**

(*with* Voss, Heinrich) Pointwise inclusions of fixed points by finite-dimensional iteration schemes. **(80f:65069)**

Stern, M. S. Application of the El-Gendi method to the Schrödinger integral equation. **(80d:81111)**

Storvick, T. S. *See* **Loyalka, S. K.; et al., (80j:76047)**

Surinov, Ju. A. An iterative-zonal method of investigation and computation of radiant heat transfer in an absorbing and scattering medium. (Russian) **(80a:80007)**

Takeda, Tatsuoki (*with* Toi, Kazuo; Tsunematsu, Toshihide) Application of nonlinear optimization algorithms to the problems in plasma physics and thermonuclear fusion research. **(80g:93028)**

Theocaris, Pericles S. *See* **Ioakimidis, Nikolaos I., (80f:73016)**

Toi, Kazuo *See* **Takeda, Tatsuoki; et al., (80g:93028)**

Torrence, R. J. *See* **Couch, W. E., (80a:83024)**

Tsunematsu, Toshihide *See* **Takeda, Tatsuoki; et al., (80g:93028)**

Vainikko, G. (*with* Lejk, R.) On the reduction method for multidimensional discrete Wiener-Hopf equations. (Russian. Estonian and English summaries) **(80j:45019)**

See also **Mikhin, S., (80c:65072)**

Vidossich, Giovanni Chaplygin's method is Newton's method. **(80a:65180)**

Voss, Heinrich *See* **Sprekels, Jürgen, (80f:65069)**

Yamaguchi, Seiichi *See* **Inoue, M.; et al., (80c:76011)**

Zverev, A. E. (*with* Konoval'cev, I. V.) Application of regularization methods for the solution of problems of synthesis of photoelectric transformers. (Russian) **(80d:78035)**

65R99 None of the above, but in this section

Secondary classifications:

Dzhumabekova, S. S. On the approximate solution of the initial problem for semi-explicit nonlinear integro-partial differential equations. (Russian. Kazakh summary) **(80f:65100)**

Spijker, M. N. Error bounds in the numerical solution of initial value problems. **(80f:65085)**

65S05 Graphical methods

Amomulloev, A. An algorithm for determining the transformation parameters of circular nomograms. (Russian. Tajiki summary) **80g:65132**

Ionescu, Gh. D. Sur l'extension du procédé nomographyque de W. Margoulis à quelques systèmes de trois équations. **80c:65257**

Kozlova, E. G. Graphical and nomography methods of constructing approximate Čebyšev nomograms from adjusted points of Cauchy type. (Russian) **80g:65133**

Kuz'min, E. N. The general anamorphism problem. (Russian) **80m:65091**

Orbán, B. (*with* Radó, F.) Nomograms with minimal global error. **80f:65151**

Radó, F. *See* **Orbán, B., 80f:65151**

Šermatov, N. On the question of the basis of the method of fundamental nomograms. (Russian) **80g:65134**

Shimokawa, Yakichi On the nomographic chart of three complex variables in the line coordinates. (Czech and Russian summaries) **80a:65130**

Silaeva, E. A. Representability of complete equations of fourth and fifth nomographic order with four and five variable nomograms from aligned points. (Russian) **80g:65135**

Secondary classifications:

(Hovanskiĭ, G. S.) *See* **Nomography collection, (80c:65005)**

Maĭlmov, M. M. ★Уравнивание геодезических сетей. (Russian) [Smoothing of geodesic nets] **(80k:86006)**

McNamee, J. M. Some comments on D. R. Shier's paper: "Inverting sparse matrices by tree partitioning" (J. Res. Nat. Bur. Standards Sect. B **80B** (1976), no. 2, 245–257). **(80b:65037)**

Proizvolov, V. V. A graphic method of approximation of a set of points on the plane of a straight line. (Russian) **(80c:65019)**

(Shier, D. R.) *See* **McNamee, J. M., (80b:65037)**

Nomography collection ★Номографический сборник. No. 12. (Russian) [Nomography collection. No. 12] **(80c:65005)**

65T05 Harmonic analysis and synthesis

Cavers, J. K. On the fast Fourier transform inversion of probability generating functions. **80g:65136**

Dragasov, G. Algorithms of the fast Fourier transform. (Bulgarian. Russian and English summaries) **80g:65137**

Korn, David G. (*with* Lambiotte, Jules J., Jr.) Computing the fast Fourier transform on a vector computer. **80k:65108**
Lambiotte, Jules J., Jr. *See* **Korn, David G., 80k:65108**
Meinardus, Günter Schnelle Fourier-Transformation. **80d:65141**
Papatheodorou, Theodore Fast tensor product Poisson solvers for the Dirichlet problem on a rectangle. (French summary) **80c:65195**
Talman, James D. Numerical Fourier and Bessel transforms in logarithmic variables. **80c:65278**

Secondary classifications:

Dürr, H.-P. Dynamical origin of symmetry. **(80a:82023)**
Fymat, Alain L. A generalization of Cooke's integral inversion formula with application to remote-sensing theory. **(80b:65152)**
Kreiss, Heinz-Otto (*with* Oliger, Joseph) Stability of the Fourier method. **80d:65130)**
Oliger, Joseph *See* **Kreiss, Heinz-Otto, (80d:65130)**
Parsons, Thomas W. A Winograd-Fourier transform algorithm for real-valued data. **(80b:94004)**
Savelova, T. I. A stable summation of Fourier series. (Russian) **(80k:65011)**

65U05 Numerical methods in probability and statistics

Gragg, W. B. (*with* LeVeque, R. J.; Trangenstein, J. A.) Numerically stable methods for updating regressions. **80k:65109**
Helfand, E. Numerical integration of stochastic differential equations. **80m:65092**
Jefferys, William H. On the method of least squares. **80k:65110**
LeVeque, R. J. *See* **Gragg, W. B.; et al., 80k:65109**
Mikul'skiĭ, A. I. Reconstruction of statistical dependencies by averaged splines. (Russian) **80k:65111**
Trangenstein, J. A. *See* **Gragg, W. B.; et al., 80k:65109**

Secondary classifications:

Amos, Donald E. Evaluation of some cumulative distribution functions by numerical quadrature. **(80g:65021)**
(Corsten, L. C. A.) *See* **Compstat, (80a:62004)**
(Hermans, J.) *See* **Compstat, (80a:62004)**
Hintermann, A. (*with* Kunz, H.; Wu, F. Y.) Exact results for the Potts model in two dimensions. **(80a:82039)**
Kunz, H. *See* **Hintermann, A.; et al., (80a:82039)**
Sjöberg, Lars Integral formulas for heterogeneous data in physical geodesy. **(80k:86007)**
Wu, F. Y. *See* **Hintermann, A.; et al., (80a:82039)**
Compstat ★Compstat 1978. **(80a:62004)**
Computational statistics *See* **Compstat, (80a:62004)**
Leiden *See* **Compstat, (80a:62004)**
Symposium:
Computational Statistics *See* **Compstat, (80a:62004)**

65V05 Automated algorithms [See also 68C05.]

68–XX COMPUTER SCIENCE (including AUTOMATA) {For papers involving machine computations and programs in a specific mathematical area, see section –04 in that area.}

(Agnew, Irene) *See* **Glossary of English and Russian computer and automated control systems terminology, 80b:68001**
(Goldgor, Vladimir) *See* **Glossary of English and Russian computer and automated control systems terminology, 80b:68001**
Spencer, Donald D. ★The illustrated computer dictionary. **80m:68001**
Dictionary:
Computer and automated control systems terminology *See* **Glossary of English and Russian computer and automated control systems terminology, 80b:68001**
Computers *See* **Spencer, Donald D., 80m:68001**
Glossary of English and Russian computer and automated control systems terminology ★Glossary of English and Russian computer and automated control systems terminology. **80b:68001**

Secondary classifications:

Greenstein, Carol Horn ★Dictionary of logical terms and symbols. **(80b:03010)**
Rupińska, Maria ★Sieci komputerowe słownictwo. (Polish) [Glossary of computer networks] **(80j:00010)**
Computer networks *See* **Rupińska, Maria, (80j:00010)**
Dictionary:
Computer networks (Polish-English) *See* **Rupińska, Maria, (80j:00010)**
Logical terms and symbols *See* **Greenstein, Carol Horn, (80b:03010)**
Microprocessors ★Short microprocessor dictionary. **(80j:00011)**
Microprocessors *See* **Dictionary: Microprocessors, (80j:00011)**

68–01 Elementary exposition, textbooks

Ceĭtlin, G. E. *See* **Glushkov, V. M.; et al., 80b:68002**
Chasen, Sylvan H. ★Geometric principles and procedures for computer graphic applications. **80j:68001**
Erlov, A. P. ★Введение в теоретическое программирование. (Russian) [Introduction to theoretical programming] **80g:68001**
Glushkov, V. M. (*with* Ceĭtlin, G. E.; Juščenko, K. L.) ★Алгебра, языки, программирование. (Russian) [Algebra, language, programming] **80b:68002**
Harrow, Keith Theoretical and applied computer science: antagonism or symbiosis? **80c:68001**
Hwang, Kai ★Computer arithmetic. **80m:68002**
Ji, Zhi The relation between mathematics and computer science. I. (Chinese) **80m:68003a**
The relation between mathematics and computer science. II. (Chinese) **80m:68003b**
Juščenko, K. L. *See* **Glushkov, V. M.; et al., 80b:68002**
Kronsjö, Lydia I. ★Algorithms: their complexity and efficiency. **80m:68004**
Rus, Teodor ★Data structures and operating systems. **80f:68001**
Schnupp, Peter ★Rechnernetze. **80f:68002**
Trahtenbrot, B. A. ★Algoritmusok és absztrakt automaták. (Hungarian) [Algorithms and abstract automata] **80i:68001**
Ullman, Jeffrey D. ★Principles of database systems. **80j:68002**
(Urbán, János) *See* **Trahtenbrot, B. A., 80i:68001**

Secondary classifications:

Berstel, Jean ★Transductions and context-free languages. **(80j:68056)**
(Gries, David) *See* **Programming methodology, (80i:68005)**
Paul, Wolfgang J. ★Komplexitätstheorie. **(80c:68033)**
Pospelov, D. A. Artificial intelligence systems: results and short-term outlook. (Russian. English summary) **(80m:68076)**
Programming methodology ★Programming methodology. **(80i:68005)**

68–02 Advanced exposition (research surveys, monographs, etc.)

Baraško, A. S. (*with* Lipskaja, V. A.; Rojzen, S. I.) ★Исследование по теории сложности вычислений и формальным языкам. (Russian) [Studies in the theory of computational complexity and formal languages] **80d:68001**
Lipskaja, V. A. *See* **Baraško, A. S.; et al., 80d:68001**
Rojzen, S. I. *See* **Baraško, A. S.; et al., 80d:68001**
Sellers, Peter H. ★Combinatorial complexes. **80m:68005**
IRIA Séminaire:
Langages et Traducteurs *See* **Langages et traducteurs, 80c:68002**
Langages et traducteurs ★Langages et traducteurs. **80c:68002**
Rocquencourt *See* **Langages et traducteurs, 80c:68002**

Secondary classifications:

Harrison, Michael A. ★Introduction to formal language theory. **(80h:68060)**
Kandel, Abraham (*with* Lee, Samuel C.) ★Fuzzy switching and automata: theory and applications. **(80g:94117)**
Lee, Samuel C. *See* **Kandel, Abraham, (80g:94117)**

68–03 Historical (must also be assigned at least one classification number from Section 01)

Secondary classifications:

Freguglia, Paolo Giuseppe Peano and the forerunners of mathematical linguistics. (Italian. English summary) **(80j:01017)**
Hawkins, W. F. The first calculating machine (John Napier, 1617). **(80k:01023)**
(Markov, Andrei Andreevič) *See* **Petruszewycz, M., (80j:68072)**
(Napier, John) *See* **Hawkins, W. F., (80k:01023)**
(Peano, Giuseppe) *See* **Freguglia, Paolo, (80j:01017)**
Petruszewycz, M. A. A. Markov, ses probabilités en chaîne et les statistiques linguistiques. (English summary) **(80j:68072)**

68–04 Explicit machine computation and programs (not the theory of computation or programming)

Secondary classifications:

Machida, Hajime *See* **Noshita, Kohei; et al., (80c:68022)**
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68B10 Analysis of programs (schemata, semantics, correctness, etc.)

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68Cxx Metatheory (excluding automata)

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68C05 Algorithms [See also 03–XX, 65V05.]

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Secondary classifications:

Allen, Arnold O. ★Probability, statistics, and queueing theory. (**80e:60163**)
Arthurs, E. (*with* Stuck, B. W.) Analysis of a single-buffer loss-delay system. (**80e:90065**)

Błażewicz, Jacek Scheduling with deadlines in multiprocessor systems. **(80g:90061)**
Chandy, K. Mani (*with* Misra, Jayadev) Deadlock absence proofs for networks of communicating processes. **(80m:68009)**
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Gaul, Wolfgang Some structural properties of project digraphs. **(80k:05061)**
Gelenbe, Erol Probabilistic models of computer systems. II. Diffusion approximations, waiting times and batch arrivals. **(80k:68090)**
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Lavenberg, Stephen S. Stability and maximum departure rate of certain open queuing networks having finite capacity constraints. (French summary) **(80c:60104)**
Litvinov, A. L. *See* **Popov, V. A., (80a:94028)**
Merlin, Philip M. (*with* Schweitzer, Paul J.) Deadlock avoidance in store-and-forward networks. I. Store-and-forward deadlock. **(80m:68010a)**
(*with* Schweitzer, Paul J.) Deadlock avoidance in store-and-forward networks. II. Other deadlock types. **(80m:68010b)**
Misra, Jayadev *See* **Chandy, K. Mani, (80m:68009)**
Nash, Peter Controlled jump process models for stochastic scheduling problems. **(80k:93058)**
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Pearce, C. E. M. Teletraffic theory and the renewal paradox. (French summary) **(80b:90065)**
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Popov, V. A. (*with* Litvinov, A. L.) Estimation of the variants of design and choice of parameters of an exchange channel of digital control computers. (Russian. English summary) **(80a:94028)**
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Schassberger, R. A definition of discrete product form distributions. (German summary) **(80g:60095)**
Schweitzer, Paul J. *See* **Merlin, Philip M., (80m:68010a)** *and* **Merlin, Philip M., (80m:68010b)**
Stahn, Heinz *See* **Petersohn, Uwe, (80k:90028)**
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Secondary classifications:

Artamanov, G. T. (*with* Brehov, O. M.) ★Аналитические вероятностные модели функционирования ЭВМ. (Russian) [Analytic probability models of the functioning of computers] **(80b:68005)**
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Wagner, Franz *See* **Langmaack, Hans; et al., 80m:68045**
Zachar, Z. The solvability of the equivalence problem for deterministic frontier-to-root tree transducers. **80h:68045**

Secondary classifications:

Culik, Karel, II (*with* Salomaa, Arto K.) On the decidability of homomorphism equivalence for languages. **(80g:68093)**
Some decidability results about regular and pushdown translations. **(80d:68102)**
Ehrenfeucht, Andrzej (*with* Rozenberg, Grzegorz) Simplifications of homomorphisms. **(80a:20080)**
Friedman, Emily P. (*with* Greibach, Sheila A.) Monadic recursion schemes: the effect of constants. **(80e:68202)**
Grabowski, Janusz The unsolvability of some Petri net language problems. **(80j:68017)**
Greibach, Sheila A. *See* **Friedman, Emily P., (80e:68202)**
Harju, Tero (*with* Penttonen, Martti) Some decidability problems of sentential forms. **(80f:68084)**
Hunt, Harry B., III (*with* Szymanski, T. G.) Corrigendum: "Lower bounds and reductions between grammar problems" (*J. Assoc. Comput. Mach.* **25** (1978), no. 1, 32–51). **(80b:68087)**
Karhumäki, Juhani On commutative DTOL systems. **(80m:68075)**
Klopotowski, Jacek Transition operators for (Z, Q)-machines. **(80f:68069)**
Kostovskiĭ, V. A. Application of intuitionist negation to the diagnosis of an endless loop in certain programs. (Russian) **(80m:68021)**
Nakamura, Akira *See* **Ono, Hiroakira, (80k:03045)**
Nepomnjaščiĭ, V. A. On divergence and halting problems for monadic program schemas. **(80d:68022)**
Ono, Hiroakira (*with* Nakamura, Akira) Undecidability of the first-order arithmetic $A[P(x), 2x, x+1]$. **(80k:03045)**
Penttonen, Martti *See* **Harju, Tero, (80f:68084)**
Pour-El, M. B. (*with* Richards, Ian) *Differentiability properties of computable functions* —a summary. **(80d:03059)**
Richards, Ian *See* **Pour-El, M. B., (80d:03059)**
Rozenberg, Grzegorz *See* **Ehrenfeucht, Andrzej, (80a:20080)**
Ruohonen, Keijo Remarks on locally catenative developmental sequences. (German and Russian summaries) **(80g:68104)**
On the decidability of the OL-DOL equivalence problem. **(80e:68197)**
Salomaa, Arto K. *See* **Culik, Karel, II, (80g:68093)**
Satô, Kôjirô *A decision procedure for the unique decipherability of multivalued encodings.* **(80g:94044)**
Smikun, L. B. The degree of unsolvability of algorithmic problems connected with *automata operation on groups. (Russian. English summary)* **(80d:03037)**
Stankiewicz, Ewa (*with* Żakowski, Wojciech) The (Z, Q)-systems. **(80f:68071)**
Straight, David W. Domino *f*-sets. **(80h:03057)**
Szymanski, T. G. *See* **Hunt, Harry B., III, (80b:68087)**
Validov, F. I. Minimal numerations of families of general recursive functions. (Russian) **(80f:03046)**
Żakowski, Wojciech *See* **Stankiewicz, Ewa, (80f:68071)**

68C40 Turing machines, abstract processors [See also 03D10.]

Bergstra, Jan Recursion theory on processes. **80f:68057**
Brandstädt, Andreas *See* **Wechsung, Gerd, 80e:68138**
Bulitko, V. K. (*with* Probst, D.) Computations with limited storage of entries. **80f:68058**
Czaja, Ludwik A specification of parallel problems. **80g:68066**
Hartmanis, J. (*with* Immerman, N.; Mahaney, S.) One-way log-tape reductions. **80e:68133**
Hemmerling, Armin Systeme von Turing-Automaten und Zellularräume auf rahmbaren Pseudomustermengen. (English and Russian summaries) **80m:68048**
Immerman, N. *See* **Hartmanis, J.; et al., 80e:68133**
Inoue, Katsushi (*with* Takanami, Itsuo) A note on closure properties of the classes of sets accepted by tape-bounded two-dimensional Turing machines. **80f:68059a**
(*with* Takanami, Itsuo) Three-way tape-bounded two-dimensional Turing machines. **80e:68134**
(*with* Takanami, Itsuo) Closure properties of three-way and four-way tape-bounded two-dimensional Turing machines. **80f:68059b**
(*with* Takanami, Itsuo) A note on deterministic three-way tape-bounded two-dimensional Turing machines. **80f:68039**
Kosovskiĭ, N. K. The complexity of the solvability of Boolean functional equations. (Russian) **80d:68062**
Mahaney, S. *See* **Hartmanis, J.; et al., 80e:68133**
Morita, Kenichi (*with* Umeo, Hiroshi; Sugata, Kazuhiro) Computational complexity of $L(m, n)$ tape-bounded two-dimensional Turing machines. **80f:68060**
Poljakov, E. A. (*with* Rozinas, M. G.) Correlations between different forms of relative computability of functions. (Russian) **80e:68135**
Probst, D. *See* **Bulitko, V. K., 80f:68058**
Rozinas, M. G. *See* **Poljakov, E. A., 80e:68135**
Simon, Friedemann (*with* Trademann, Peter) Eine Beziehung zwischen cons-freiem LISP und Stackautomaten. (English and Russian summaries) **80e:68136**
Sipser, Michael Halting space-bounded computations. **80e:68137**
Sugata, Kazuhiro *See* **Morita, Kenichi; et al., 80f:68060**
Takanami, Itsuo *See* **Inoue, Katsushi, 80e:68134; Inoue, Katsushi, 80f:68059a; Inoue, Katsushi, 80f:68059b** *and* **Inoue, Katsushi, 80f:68039**
Trademann, Peter *See* **Simon, Friedemann, 80e:68136**
Umeo, Hiroshi *See* **Morita, Kenichi; et al., 80f:68060**
Wechsung, Gerd (*with* Brandstädt, Andreas) A relation between space, return and dual return complexities. **80e:68138**
Žák, Stanislav A Turing machine space hierarchy. **80f:68040**

Secondary classifications:

Anisimov, A. V. Church-Rosser marking transformers and solvable properties of tree processing. (Russian) **(80k:68016)**
Barth, Gerhard Efficient non-context-free parsing. **(80m:68072b)**
Buchberger, Bruno (*with* Roider, Bernhard) Input/output codings and transition functions in effective systems. **(80d:68063)**
Fischer, Patrick C. (*with* Kintala, Chandra M. R.) Real-time computations with restricted nondeterminism. **(80f:68044)**
Greibach, Sheila A. Visits, crosses, and reversals for nondeterministic off-line machines. **(80g:68102)**
Hemmerling, Armin Zur Raumkompliziertheit mehrdimensionaler Zellularräume und Turing-Automaten. (Russian and English summaries) **(80m:68051)**
Istrail, Sorin Elementary bounded languages. **(80f:68085)**
King, K. N. (*with* Wrathall, Celia) Stack languages and log *n* space. **(80h:68069)**
Kintala, Chandra M. R. *See* **Fischer, Patrick C., (80f:68044)**
Lugowski, Herbert Über Normalformen von Elementen freier Turing-Algebren. (Russian and English summaries) **(80j:03091)**
Malcolm, Michael A. A process abstraction and its application. **(80h:68023)**
Morita, Kenichi (*with* Umeo, Hiroshi; Sugata, Kazuhiro) Language recognition abilities of several two-dimensional tape automata and their relation to tape complexities. **(80f:68093)**
Roider, Bernhard *See* **Buchberger, Bruno, (80d:68063)**
Staiger, Ludwig (*with* Wagner, Klaus) Rekursive Folgenmengen. I. **(80f:03044)**
Sudborough, I. H. On the tape complexity of deterministic context-free languages. **(80h:68065)**
Sugata, Kazuhiro *See* **Morita, Kenichi; et al., (80f:68093)**
Umeo, Hiroshi *See* **Morita, Kenichi; et al., (80f:68093)**
Wagner, Klaus *See* **Staiger, Ludwig, (80f:03044)**
Wrathall, Celia *See* **King, K. N., (80h:68069)**

68C99 None of the above, but in this section

Kabulov, A. V. *Functions that correct sets of noncorrecting algorithms. (Russian)* **80a:68048**
Tiuryn, Jerzy Fixed-points and algebras with infinitely long expressions. I. Regular *algebras.* **80a:68049**

Secondary classifications:

Cooper, C. A. *See* **Moldovan, D. I., (80b:68008)**
Genrich, Hartmann J. (*with* Lautenbach, Kurt) Facts in place/transition-nets. **(80g:68085)**
Lautenbach, Kurt *See* **Genrich, Hartmann J., (80g:68085)**
Moldovan, D. I. (*with* Cooper, C. A.) *Accuracy limits of arithmetic calculations* performed on microprocessors. **(80b:68008)**

68Dxx Automata [See also 03D05, 18B20, 68F10.]

Secondary classifications:

Baraško, A. S. (*with* Lipskaja, V. A.; Rolzen, S. I.) ★Исследование по теории

сложности вычислений и формальным языкам. (Russian) [Studies in the theory of computational complexity and formal languages] (80d:68001)
Jaczewski, Jerzy ★Logical systems for industrial applications. (80h:94053)
Lipskaja, V. A. *See* Baraško, A. S.; et al., (80d:68001)
(Przybylski, Tadeusz) *See* Jaczewski, Jerzy, (80h:94053)
Rolzen, S. I. *See* Baraško, A. S.; et al., (80d:68001)

68D05 General theory

Beyga, Lech Some remarks on the transformations, groups of automorphisms, and characteristic semigroups of permutation controllable automata. 80c:68037
Bhattacharyya, A. Fault detection in Moore-model sequential machine using counter-cycle technique. 80e:68139
Bogomolov, A. M. (*with* Tverdohlebov, V. A.) Synchronization of a deterministic finite automaton. 80e:68140
Bratičević, D. *See* Ušćumlić, Š., 80e:68142
Buchberger, Bruno (*with* Roider, Bernhard) Input/output codings and transition functions in effective systems. 80d:68063
Chen, Zen *See* Das, Sunil R.; et al., 80f:68061
Christol, Gilles Ensembles presque periodiques k-reconnaissables. (English summary) 80e:68141
Danilov, V. V. (*with* Žirabok, A. N.; Filippov, F. V.) Derivation of identifying tests for automata. 80d:68064
Das, Sunil R. (*with* Sheng, C. L.; Chen, Zen; Hsu, W. J.) Transition matrices in the measurement and control of synchronous sequential machines. 80f:68061
Filippov, F. V. *See* Danilov, V. V.; et al., 80d:68064
Frolov, E. B. Connectivity of the graph of a finite automaton with a large set of states. 80b:68046
Gaitanis, Nicolaos *See* Halatsis, Constantine, 80b:68061
Gécseg, Ferenc (*with* Steinby, Magnus) Minimal ascending tree automata. 80f:68062
Gorjaiko, A. P. An optimum method of synthesis of a reliable universal automaton. 80h:68047
Gössel, Michael A generalized principle of the superposition of automata with respect to a pair of Boolean functions. (Russian. English summary) 80m:68049
Halatsis, Constantine (*with* Gaitanis, Nicolaos) Positive fail-safe realization of synchronous sequential machines. 80b:68061
Hsu, W. J. *See* Das, Sunil R.; et al., 80f:68061
Istrail, Sorin On the complexity of program divergence. 80d:68065
Ivanov, N. N. Behavior of interacting automata simulating a system "plant-controller". 80k:68032
Kobayashi, Kojiro The firing squad synchronization problems for a class of polyautomata networks. 80g:68067
Korišunov, A. D. Enumeration of finite automata. (Russian) 80a:68050
Levin, V. I. Logical determinants and automata with continuous time. I. Theory of logical determinants. 80a:68051
Morita, Kenichi (*with* Sugata, Kazuhiro; Umeo, Hiroshi) Computation complexity of n-bounded counter automaton and multidimensional rebound automaton. 80g:68068
See also Umeo, Hiroshi; et al., 80g:68070
Pîun, Gheorghe Generative grammars for some economical activities (scheduling and marshalling problems). 80g:68069
Pawlaczyk, Bogusław On some properties of the connectedness of the subautomata associated with the change of operating time of finite automata. 80b:68062
Roider, Bernhard *See* Buchberger, Bruno, 80d:68063
Sheng, C. L. *See* Das, Sunil R.; et al., 80f:68061
Smilkin, L. B. Regular sets and finite automata over β-groups. (Russian. English summary) 80c:68038
Steinby, Magnus *See* Gécseg, Ferenc, 80f:68062
Strassner, Karl Erweiterungen und Produkte von Semimoduln. (English and Russian summaries) 80m:68050
Sugata, Kazuhiro *See* Morita, Kenichi; et al., 80g:68068 *and* Umeo, Hiroshi; et al., 80g:68070
Tverdohlebov, V. A. *See* Bogomolov, A. M., 80e:68140
Umeo, Hiroshi (*with* Morita, Kenichi; Sugata, Kazuhiro) Some notes concerning the shape of two-dimensional input tapes. 80g:68070
See also Morita, Kenichi; et al., 80g:68068
Ušćumlić, Š. (*with* Bratičević, D.) Analysis of finite state automata by state isolation. 80c:68142
Vũ Duy Mẫn Über einige Akzeptierungsarten bei eindimensionalen iterativen Automaten. (English and Russian summaries) 80j:68038
Wiśniewski, Kazimierz A notion of the acceptance of infinite sequences by finite automata. (Russian summary) 80k:68033
Žirabok, A. N. *See* Danilov, V. V.; et al., 80d:68064
Zabenko, V. V. Finite-automaton mappings into a partially commutative semigroup. (Russian. English summary) 80c:68039

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Case, John (*with* Smith, Carl) Anomaly hierarchies of mechanized inductive inference. (80d:68047)
Đỗ Long Vân (*with* Vũ Duy Mẫn) Bemerkungen zu einer Klasse von durch eindimensionale iterative Automaten akzeptierten Sprachen. (English and Russian summaries) (80j:68066)
Golomb, Michael Stability of interpolating elastica. (80d:73067)
Harrison, Michael A. ★Introduction to formal language theory. (80h:68060)
Ihle, E. Ein an der Automatentheorie orientierter abstrakter Systembegriff und seine Beziehungen zum "kausalen System" nach Windeknecht. (80f:93008)
Inoue, Katsushi (*with* Takanami, Itsuo) Three-way two-dimensional multicounter automata. (80k:68061)
(*with* Takanami, Itsuo) A note on deterministic three-way tape-bounded two-dimensional Turing machines. (80f:68039)
Kalaĭnikov, V. A. (*with* Percev, V. A.) An approach to the solution of the problem of function partitioning of the structure of a combination automaton. (80e:68073)
Kaliničenko, L. A. Method of construction of commutative mappings of models given in integration of inhomogenous data bases. (Russian) (80h:68012)
Lagovier, B. A. Algorithms for program realization of automata. (80e:68017)
Le Cong Thanh (*with* Phan Đình Diệu) Asymptotic estimates for some parameters of finite graphs, and their applications. (Russian) (80k:05071)
Mullis, C. T. (*with* Roberts, R. A.) On weak equivalence of linear systems and finite state systems. (80c:93010)
Papke, W. Startverhalten eines Automaten in stochastischen Umwelten. (80a:68056)
Percev, V. A. *See* Kalaĭnikov, V. A., (80e:68073)
Phan Đình Diệu *See* Le Cong Thanh, (80k:05071)
Roberts, R. A. *See* Mullis, C. T., (80c:93010)
Roitberg, M. A. Automata circuits and the mappings realized by them. (80a:68061)
Smith, Carl *See* Case, John, (80d:68047)
Šukurjan, S. K. A result concerning the functional equivalence of program schemata with nondegenerate statements. (80m:68024)
Takanami, Itsuo *See* Inoue, Katsushi, (80f:68039) *and* Inoue, Katsushi, (80k:68061)
Tarjan, Robert Endre A class of algorithms which require nonlinear time to maintain disjoint sets. (80e:68079)
Vũ Duy Mẫn *See* Đỗ Long Vân, (80j:68066)

68D15 Linear automata, sequential machines

Agronik, G. S. Linear sequential machines with constant input. 80f:68063
Dunworth, A. (*with* Hartog, H. V.) An efficient state minimization algorithm for some special classes of incompletely specified sequential machines. 80k:68048
Hartog, H. V. *See* Dunworth, A., 80h:68048
Lilin, E. S-transducteurs de forêts. 80a:68052
Maxson, Carlton J. (*with* Smith, Kirby C.) Automorphisms of linear automata. 80k:68034
Reusch, Bernd Realization of finite automata with linear parts. 80a:68053
Rösner, Th. *See* Streich, W. J., 80d:68066
Smith, Kirby C. *See* Maxson, Carlton J., 80k:68034
Streich, W. J. (*with* Rösner, Th.) ★Theorie linearer Automaten. 80d:68066

Secondary classifications:

Bednár, P. *See* Šutek, L., (80i:93040)
Chen, Zen *See* Das, Sunil R.; et al., (80f:68061)
Das, Sunil R. (*with* Sheng, C. L.; Chen, Zen; Hsu, W. J.) Transition matrices in the measurement and control of synchronous sequential machines. (80f:68061)
David, René *See* Thévenod-Fosse, Pascale, (80g:94093)
Hsu, W. J. *See* Das, Sunil R.; et al., (80f:68061)
Levin, V. I. Logical determinant theory and its application to informational problems. (Russian. English summary) (80h:68058)
Rabinovitz, Moshe Closure properties and languages defined by bilinear automata. (80a:68098)
Sheng, C. L. *See* Das, Sunil R.; et al., (80f:68061)
Šutek, L. (*with* Bednár, P.) A finite sequential automat as the model of a continuous dynamic system. (80i:93040)
Thévenod-Fosse, Pascale (*with* David, René) A method to analyse random testing of sequential circuits. (French and German summaries) (80g:94093)
Tohma, Yoshihiro *See* Wakimura, Yoshiaki, (80k:68047)
Wakimura, Yoshiaki (*with* Tohma, Yoshihiro) Design of checking experiments based on the ordering relation of state transitions. (80k:68047)
Zachar, Z. The solvability of the equivalence problem for deterministic frontier-to-root tree transducers. (80h:68045)

68D20 Tessellation automata, iterative arrays, cellular structure

Aggarwal, Sudhir A note on: "Indecomposable parallel maps in tessellation structures" (J. Comput. System Sci. 13 (1976), no. 2, 136–142) by S. Amoroso and I. J. Epstein. 80b:68063
(Amoroso, S.) *See* Aggarwal, Sudhir, 80b:68063
Bedrosian, Samuel D. *See* Chang, T. J., 80c:68040
Blum, Manuel (*with* Kozen, Dexter) On the power of the compass (or, why mazes are easier to search than graphs). 80f:68064
Bruckner, L. K. On the Garden-of-Eden problem for one-dimensional cellular automata. 80j:68039
Butler, Jon T. Decomposable maps in general tessellation structures. 80j:68040
Chang, T. J. (*with* Bedrosian, Samuel D.) Cell structure minimization for incompletely specified cellular arrays of ROMs. 80c:68040
Dezani-Ciancaglini, M. (*with* Ronchi Della Rocca, S.) Reduction of storage employed to represent families of information structures. 80b:68064
(Epstein, I. J.) *See* Aggarwal, Sudhir, 80b:68063
Freeman, Martin Aspects of the upper bounds of finite input-memory and finite output-memory sequential machines. 80b:68065
Fukumura, Teruo *See* Yanase, Tatsuro; et al., 80c:68045
Gaitanis, Nicolaos (*with* Halatsis, Constantine) A new double-rank realization of sequential machines. 80b:68066
Golze, Ulrich (A-)synchronous (non-)deterministic cell spaces simulating each other. 80c:68041
Halatsis, Constantine *See* Gaitanis, Nicolaos, 80b:68066
Hemmerling, Armin Zur Raumkomplexitiertheit mehrdimensionaler Zellularräume und Turing-Automaten. (Russian and English summaries) 80m:68051
Hoffmann, R. Unzuverlässige binäre zellulare Systeme. 80g:68071
Inagaki, Yasuyoshi *See* Yanase, Tatsuro; et al., 80c:68045
Inoue, Katsushi (*with* Nakamura, Akira) Some properties of two-dimensional on-line tessellation acceptors. 80e:68143
(*with* Nakamura, Akira) Refinements of the powers of two-dimensional on-line tessellation acceptors and their variants. 80g:68072

(*with* Takanami, Itsuo) Cyclic closure properties of automata on a two-dimensional tape. **80e:68144**

(*with* Nakamura, Akira) Two-dimensional multipass on-line tessellation acceptors. **80e:68145**

(*with* Takanami, Itsuo) A note on bottom-up pyramid acceptors. **80e:68042**

Jugel, Albert (*with* Zlateva, Stoyanka D.) Diskrete zellulare Systeme. (Bulgarian, Russian and English summaries) **80b:68067**

Katona, E. Linear parallel maps of tessellation automata. **80j:68041**

Kimura, Masayuki *See* **Maruoka, Akira, 80c:68044**

Kobayashi, Kojiro On the minimal firing time of the firing squad synchronization problem for polyautomata networks. **80c:68043**

Kozen, Dexter *See* **Blum, Manuel, 80f:68064**

Maruoka, Akira (*with* Kimura, Masayuki) Injectivity and surjectivity of parallel maps for cellular automata. **80c:68044**

Müller, Horst Selbstreproduktion in Zellularen Netzen. **80j:68042**

Nakamura, Akira *See* **Inoue, Katsushi, 80e:68143; Inoue, Katsushi, 80e:68145** *and* **Inou.-, Katsushi, 80g:68072**

Pleshevič, G. S. Recognition of formal languages on one-dimensional iterative automata. (Russian. English summary) **80b:68068**

Podkolzin, A. S. Universal homogeneous structures. (Russian) **80g:68073**

Priese, Lutz A note on asynchronous cellular automata. **80b:68069**

Ronchi Della Rocca, S. *See* **Dezani-Ciancaglini, M., 80b:68064**

Rosenfeld, Azriel *See* **Wu, Angela, 80f:68041**

Takanami, Itsuo *See* **Inoue, Katsushi, 80e:68042** *and* **Inoue, Katsushi, 80e:68144**

Toffoli, Tommaso Integration of the phase-difference relations in asynchronous sequential networks. **80d:68067**

Vũ Duy Mãñ Berechnung von Wortfunktionen auf deterministischen n-dimensionalen iterativen Automaten. (English and Russian summaries) **80a:68054**

Wilson, Stephen J. On convergence of configurations. **80g:68074**

Wu, Angela (*with* Rosenfeld, Azriel) Sequential and cellular graph automata. **80f:68041**

Yamase, Tatsuro (*with* Inagaki, Yasuyoshi; Fukumura, Teruo) One-dimensional finite-length 2-state and 3-neighbor asynchronous cellular automaton and the Garden of Eden problem. **80c:68045**

Zlateva, Stoyanka D. *See* **Jugel, Albert, 80b:68067**

Secondary classifications:

Ae, Tadashi *See* **Masuyama, Hiroshi; et al., (80d:94034)**

Edmundson, H. P. (*with* Tung, Immanuel I.) The notion of a probabilistic cellular acceptor. **(80e:68146)**

Furuya, Kiyoshi (*with* Tohma, Yoshihiro) Input-output relationship of asynchronous circuit operating in spike-free mode. **(80d:94033)**

Masuyama, Hiroshi (*with* Ae, Tadashi; Yoshida, Noriyoshi) On the realization of hazardless asynchronous sequential circuits. **(80d:94034)**

(*with* Yoshida, Noriyoshi) On the realization of a fault-tolerant asynchronous sequential circuit protected against multi-faults. **(80d:94035)**

Morita, Kenichi (*with* Umeo, Hiroshi; Sugata, Kazuhiro) Language recognition abilities of several two-dimensional tape automata and their relation to tape complexities. **(80f:68093)**

Rosenfeld, Azriel ★Picture languages. **(80g:68113)**

Sakata, Shojiro General theory of doubly periodic arrays over an arbitrary finite field and its applications. **(80d:94020)**

Sugata, Kazuhiro *See* **Morita, Kenichi; et al., (80f:68093)**

Tohma, Yoshihiro *See* **Furuya, Kiyoshi, (80d:94033)**

Toom, A. L. Monotonic evolutions in real spaces. **(80d:68072)**

Tung, Immanuel I. *See* **Edmundson, H. P., (80e:68146)**

Umeo, Hiroshi *See* **Morita, Kenichi; et al., (80f:68093)**

Vũ Duy Mãñ Über einige Akzeptierungsarten bei eindimensionalen iterativen Automaten. (English and Russian summaries) **(80j:68038)**

Wunsch, Gerhard ★Zellulare Systeme. **(80e:93012)**

Yoshida, Noriyoshi *See* **Masuyama, Hiroshi; et al., (80d:94034)** *and* **Masuyama, Hiroshi, (80d:94035)**

68D25 Stochastic and nondeterministic automata

Anisimov, A. V. (*with* Losovik, L. P.) Equivalence problems for finite-automaton mappings onto a free, commutative semigroup. (Russian. English summary) **80m:68052**

Buharaev, R. G. Probabilistic automata. (Russian) **80g:68075**

Čirkov, M. K. On some types of incompletely specified automata. **80j:68043**

On the number of events which can be represented by a section interval. (Russian) **80a:68055**

See also **Mačak, K., 80g:68076**

Corsini, Paolo (*with* Frosini, Graziano) Interconnecting asynchronous control networks. **80d:68068**

Doberkat, Ernst-Erich On a representation of measurable automaton-transformations by stochastic automata. **80k:68035**

Convergence theorems for stochastic automata and learning systems. **80j:68044**

Edmundson, H. P. (*with* Tung, Immanuel I.) The notion of a probabilistic cellular acceptor. **80e:68146**

Frosini, Graziano *See* **Corsini, Paolo, 80d:68068**

Greibach, Sheila A. Remarks on blind and partially blind one-way multicounter machines. **80e:68147**

Herkenrath, Ulrich Modelle für die Interaktion eines stochastischen Automaten mit einer zufälligen Umwelt. **80c:68046**

Ibarra, Oscar H. The unsolvability of the equivalence problem for ε-free NGSM's with unary input (output) alphabet and applications. **80b:68070**

Inoue, Katsushi (*with* Nakamura, Akira) Some properties of two-dimensional nondeterministic finite automata and parallel-sequential array acceptors. **80f:68065**

Jung, Uwe Äquivalenz und Reduktion bei linearen nichtdeterministischen Automaten. (Russian and English summaries) **80k:68036**

Lauterbach, Lutz (*with* Stützer, Hans-Jürgen) Zur Realisierung stochastischer Automaten durch gestörte Automaten. (English and Russian summaries) **80j:68046**

Losovik, L. P. *See* **Anisimov, A. V., 80m:68052**

Mačak, K. (*with* Čirkov, M. K.) The relationship between discrete communication channels with finite memory and probabilistic automata. (Russian) **80g:68076**

Miyano, Satoru A note on one-way pushdown automata with weak-counters. **80h:68068**

Nakamura, Akira *See* **Inoue, Katsushi, 80f:68065**

Nozaki, Akihiro Equivalence problem of non-deterministic finite automata. **80b:68071**

Papke, W. Startverhalten eines Automaten in stochastischen Umwelten. **80a:68056**

Peeva, K. G. *See* **Topenčarov, Vladimir V., 80m:68053**

Pohl, Hans W. Analysis and synthesis of asynchronous stochastic automata. **80a:68057**

Sillio, Charles B., Jr. An efficient simplex coverability algorithm in E^2 with application to stochastic sequential machines. **80d:68069**

Strassen, Karl Zerlegungssätze für nichtdeterministische Automaten. (English and Russian summaries) **80k:68037**

Stützer, Hans-Jürgen *See* **Lauterbach, Lutz, 80j:68045**

Topenčarov, Vladimir V. (*with* Peeva, K. G.) On the X-reduction of S-automata. (Bulgarian. Russian and English summaries) **80m:68053**

Tung, Immanuel I. *See* **Edmundson, H. P., 80e:68146**

Zech, Karl-Adolf The inner information flow of nondeterministic automata. (German and Russian summaries) **80f:68066**

Secondary classifications:

Baba, Norio Least cost testing sequence problem with unknown rejecting probabilities. **(80c:68096)**

Čirkov, M. K. (*with* Èglitis, L. V.) Interference stability of generalized partial functions of algebraic logic. (Russian) **(80g:94082)**

Danilov, V. V. (*with* Žirabok, A. N.) Hardware monitoring of asynchronous automata by partitioning with a substitution property. **(80m:68087)**

David, René (*with* Thévenod-Fosse, Pascale) Design of totally self-checking asynchronous modular circuits. **(80d:94040)**

Edmundson, H. P. (*with* Tung, Immanuel I.) A characterization of the recursiveness of an m-adic probabilistic language. **(80b:68099)**

Èglitis, L. V. *See* **Čirkov, M. K., (80g:94082)**

Èidel'man, S. D. (*with* Ezrohi, O. Í.) Games of stochastic automata. (Russian. English summary) **(80i:68043)**

Ellis, Clarence A. Probabilistic models of computer deadlock. **(80e:68054)**

Ezrohi, O. Í. *See* **Èidel'man, S. D., (80i:68043)**

Grabowski, Janusz The unsolvability of some Petri net language problems. **(80j:68017)**

Kurdjumov, G. L. An algorithm-theoretic method for the study of homogeneous random media. (Russian) **(80a:94075)**

Lakshmanan, K. B. Compound hypothesis testing with finite memory. **(80d:68070)**

Maryanski, Fred J. (*with* Thomason, Michael G.) Properties of stochastic syntax-directed translation schemata. **(80e:68209)**

Pottosin, Ju. V. Decomposition of asynchronous automata. (Russian) **(80b:68076)**

Santos, Eugene S. Probabilistic machines and languages. **(80b:68102)**

Sapožnikov, V. V. (*with* Sapožnikov, Vl. V.) Synthesis of totally self-checking asynchronous automata. **(80g:94112)**

Sapožnikov, Vl. V. *See* **Sapožnikov, V. V., (80g:94112)**

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68D27 Playing automata, learning automata [See also 90Dxx, 68Gxx.]

Antelmann, Horst (*with* Budach, Lothar; Rollik, Hans-Anton) On universal traps. (Russian and German summaries) **80f:68042**

Aso, Hirotomo (*with* Kimura, Masayuki) Absolute expediency of learning automata. **80e:68148**

Budach, Lothar Automata in labyrinths. (Russian) **80g:68077**

See also **Antelmann, Horst; et al., 80f:68042**

Èidel'man, S. D. (*with* Ezrohi, O. Í.) Games of stochastic automata. (Russian. English summary) **80i:68043**

Ezrohi, O. Í. *See* **Èidel'man, S. D., 80i:68043**

Katz, E. *See* **Langholz, G., 80e:68149**

Kimura, Masayuki *See* **Aso, Hirotomo, 80e:68148** *and* **Toyama, Yoshihito, 80f:68067**

Lakshmanan, K. B. Compound hypothesis testing with finite memory. **80d:68070**

Langholz, G. (*with* Katz, E.) Learning automata in a three-move zero-sum game. **80e:68149**

Müller, Horst Automata catching labyrinths with at most three components. (German and Russian summaries) **80k:68038**

Rastrigin, L. A. (*with* Ripa, K. K.) Optimal automata search algorithms in nonstationary random environments. (Russian) **80a:68058**

Ripa, K. K. Synthesis of an optimal automaton acting in a nonstationary random environment. (Russian) **80a:68059**

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Rollik, Hans-Anton *See* **Antelmann, Horst; et al., 80f:68042**

Takeuchi, Akihiro Evolutionary automata—comparison of automaton behavior and Restle's learning model. **80k:68039**

Toyama, Yoshihito (*with* Kimura, Masayuki) On learning automata in nonstationary random environments. **80f:68067**

Secondary classifications:

El-Fattah, Yousri M. (*with* Foulard, Claude) ★Learning systems: decision, simulation, and control. **(80h:68074)**

Foulard, Claude *See* **El-Fattah, Yousri M., (80h:68074)**

Rohrer, Hermann G. Mathematical learning theory and its relevance for the machine-building statistician. **(80e:68215)**

Soule, Stephen The implementation of a Go board. (80d:68117)

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Bergandy, Jan On the connectivity of some subautomata of automata. 80a:68060
Dassow, Jürgen Some remarks on the algebra of automata. 80g:68078
Eichner, L. The semigroups of totally linearly realizable automata. 80k:68040
Gécseg, Ferenc (*with* Steinby, Magnus) The algebraic theory of tree automata. I. (Hungarian) 80b:68072
Ginali, Susanna Regular trees and the free iterative theory. 80e:68150
Gor'kovoi, V. F. Automorphism of finite automata and isomorphism of graphs. (Russian) 80g:68079
Grzymala-Busse, Jerzy W. On the strongly related automata. 80g:68080
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Maxson, Carlton J. *See* Hartfiel, D. J., 80b:68073
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Perrin, Dominique La représentation ergodique d'un automate fini. (English summary) 80k:68041
Rotberg, M. A. Automata circuits and the mappings realized by them. 80a:68061
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Sommerhalder, R. The endomorphism monoid of a non-cyclic automaton. (Russian summary) 80c:68047
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Topenčarov, Vladimir V. (*with* Peeva, K. G.) Mathematical theory of automata—a categorical approach. (Russian) 80k:68043
Wätjen, Dietmar Categorical theory of the simulation of automata and of their transition monoids. (German, Russian and French summaries) 80a:68063

Secondary classifications:

Arbib, Michael A. (*with* Manes, Ernest G.) Intertwined recursion, tree transformations, and linear systems. (80e:18001)
Bavel, Zamir *See* Edwards, William R., (80i:20055)
Edwards, William R. (*with* Bavel, Zamir) The left-discrimination sequence of an automaton. (80i:20055)
Jürgensen, H. Some applications of the theory of semigroups to automata. (80a:20086)
Manes, Ernest G. *See* Arbib, Michael A., (80e:18001)
Mostowski, A. Włodzimierz A note concerning the complexity of a decision problem for positive formulas in *SkS*. (80m:03028)
Peeva, K. G. *See* Topenčarov, Vladimir V., (80m:68053)
Pin, J.-E. Sur un cas particulier de la conjecture de Cerny. (80d:68074)
Schwarz, Štefan A theorem on binary relations and infinite regular languages. (80i:20057)
Topenčarov, Vladimir V. (*with* Peeva, K. G.) On the X-reduction of S-automata. (Bulgarian. Russian and English summaries) (80m:68053)

68D35 Other types of automata

Budach, Lothar Automata and labyrinths. 80k:68044
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Dal Cin, M. Self-diagnosis of interactive systems. 80c:68048
Friedman, Emily P. A note on non-singular deterministic pushdown automata. 80b:68075
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Grodzki, Z. (*with* Żurawiecki, Jerzy) On deterministic (k, m)-machines. I. 80j:68046a
(*with* Żurawiecki, Jerzy) On deterministic (k, m)-machines. II. 80j:68046b
Gurari, Eitan M. (*with* Ibarra, Oscar H.) Some decision problems concerning sequential transducers and checking automata. 80k:68051
Hasegawa, Toshiharu *See* Muro, Shojiro; et al., 80g:68082
Ibaraki, Toshihide *See* Muro, Shojiro; et al., 80g:68082
Ibarra, Oscar H. *See* Gurari, Eitan M., 80k:68051
Inoue, Katsushi (*with* Takanami, Itsuo) On-line n-bounded multicounter automata. 80e:68153
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Kostovskiĭ, V. A. Processing of sequentially incoming information with the aid of multi-head finite automata. (Russian) 80a:68064
Lindner, Rolf *See* Klette, Reinhard, 80g:68081
Morita, Kenichi *See* Sugata, Kazuhiro; et al., 80b:68077
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Nguèn Din Dan *See* Bui-Min-Či, 80k:68045
Pottosin, Ju. V. Decomposition of asynchronous automata. (Russian) 80b:68076
Reisig, Wolfgang A note on the representation of finite tree automata. 80e:68154
Savitch, Walter J. *See* Vitányi, Paul M. B., 80a:68066
Skljarevič, A. N. Derivation of a fault detection test of a combinatorial automaton by tests of automata having a reduced number of nonbranching input signals. (Russian) 80a:68065
Stanklewicz, Ewa (*with* Żakowski, Wojciech) Some basic properties of the (Z, Q)-systems. (Russian summary) 80f:68070
(*with* Żakowski, Wojciech) The (Z, Q)-systems. 80f:68071
Sugata, Kazuhiro (*with* Morita, Kenichi; Umeo, Hiroshi) The language accepted by an n-bounded multicounter automaton and its computing ability. 80b:68077
Takanami, Itsuo *See* Inoue, Katsushi, 80e:68153
Toom, A. L. Monotonic evolutions in real spaces. 80d:68072
Umeo, Hiroshi *See* Sugata, Kazuhiro; et al., 80b:68077
Veloso, Paulo A. S. (*with* Gill, Arthur) Some remarks on multiple-entry finite automata. 80e:68155
Vitányi, Paul M. B. (*with* Savitch, Walter J.) On inverse deterministic pushdown transductions. 80a:68066
Żakowski, Wojciech *See* Stanklewicz, Ewa, 80f:68070 *and* Stanklewicz, Ewa, 80f:68071
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Secondary classifications:

André, C. *See* Auguin, M.; et al., (80g:94079)
Auguin, M. (*with* Boeri, F.; André, C.) An algorithm for designing multiple Boolean functions: application to PLAs. (French and German summaries) (80g:94079)
Boeri, F. *See* Auguin, M.; et al., (80g:94079)
Greibach, Sheila A. Linearity is polynomially decidable for realtime pushdown store automata. (80e:68106)
Honda, Namio *See* Oyamaguchi, Michio, (80f:68094)
Hunt, Harry B., III *See* Rosenkrantz, Daniel J., (80f:68053)
Masunaga, Yoshifumi A probabilistic automaton model of the NRM, HDX HDLC procedure. (80a:94004)
Oyamaguchi, Michio (*with* Honda, Namio) The decidability of equivalence for deterministic stateless pushdown automata. (80f:68094)
Pawlak, Z. (*with* Rozenberg, Grzegorz; Savitch, Walter J.) Programs for instruction machines. (80e:68019)
Rosenkrantz, Daniel J. (*with* Hunt, Harry B., III) Polynomial algorithms for deterministic pushdown automata. (80f:68053)
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Savitch, Walter J. *See* Pawlak, Z.; et al., (80e:68019)
Simon, Friedemann (*with* Trademann, Peter) Eine Beziehung zwischen cons-freiem LISP und Stackautomaten. (English and Russian summaries) (80e:68136)
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Wagner, F. Binary and states sequences generated by counter-registers. (French and German summaries) (80g:94096)

68D37 Decomposition theory

Baker, Brenda S. Composition of top-down and bottom-up tree transduction. 80e:68156
Halatsis, Constantine (*with* Sigala, Maria; Philokyprou, George) Polylinear decomposition of synchronous sequential machines. 80f:68072
Kidson, D. A consideration of the use of standard MSI units in the realization of sequential machines. (French and German summaries) 80b:68078
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Thuryn, Jerzy Some results on the decomposition of finite automata. (80a:68062)
Zech, Karl-Adolf The inner information flow of nondeterministic automata. (German and Russian summaries) (80f:68066)

68D40 Reduction problems

68D45 Realizable functions and regular events

Čirkov, M. K. On the abstract analysis of partial automata. (Russian) 80a:68067
Hashiguchi, Kosaburo (*with* Honda, Namio) The star height of reset-free events and strictly locally testable events. 80g:68083
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Inoue, Nobuyuki On an application of list processing to the construction of minimal automata from regular expressions. 80g:68084
Levin, A. G. The construction of an input sequence that transforms an asynchronous circuit to a given state. (Russian) 80e:68157
Marcí, Jan Conditional programmed automata. 80a:68068
Mjuller, F. The realization of a class of automata mappings. (Russian) 80a:68069
Straubing, Howard Families of recognizable sets corresponding to certain varieties of finite monoids. 80k:68046
Thomas, Wolfgang Star-free regular sets of ω-sequences. 80k:68052

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Book, Ronald V. On languages accepted by space-bounded oracle machines. (80e:68200)
Ehrenfeucht, Andrzej (*with* Rozenberg, Grzegorz) Every two equivalent DOL systems have a regular true envelope. (80m:68073)
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Hwang, Kai On the periodicity of regular languages. (80b:68088)
Ibaraki, Toshihide *See* Muro, Shojiro; et al., (80g:68082)
Linovik, L. P. The identity problem for regular events over the direct product of a free and a cyclic semigroup. (Russian. English summary) (80i:20037)
Muro, Shojiro (*with* Ibaraki, Toshihide; Hasegawa, Toshiharu) Representation theorems of finite automata having additive cost functions. (80g:68082)

Rozenberg, Grzegorz *See* **Ehrenfeucht, Andrzej, (80m:68073)**
Veloso, Paulo A. S. Characterizing the regular prefix codes and right power-bounded languages. (80g:94065)
Yehudai, Amiram A note on the pumping lemma for regular languages. **(80i:68066)**

68D50 Experiments, state-assignments

Kuhl, Jon G. (*with* Reddy, Sudhakar M.) A multicode single transition-time state assignment for asynchronous sequential machines. **80h:68053**
Mihályffy, László On the problem of the second best assignment. (Russian summary) **80c:68158**
Pin, J.-E. Sur un cas particulier de la conjecture de Cerny. **80d:68074**
Ponomarenko, G. G. A class of nondistinguishability of automata with finite memory. (Russian) **80m:68054**
Reddy, Sudhakar M. *See* **Kuhl, Jon G., 80h:68053**
Ryscov, I. K. (*with* Spivak, M. A.) Study of irredundant sequences of sets. (Russian) **80m:68055**
An estimate of the length of the shortest diagnostic word for a finite automaton. (Russian. English summary) **80c:68049**
[illegible] M. A. *See* **Ryscov, I. K., 80m:68055**
[illegible] Yoshihiro *See* **Wakimura, Yoshiaki, 80k:68047**
[illegible] Yoshiaki (*with* Tohma, Yoshihiro) Design of checking experiments based on [illegible]ordering relation of state transitions. **80k:68047**

Secondary classifications:

Danilov, V. V. (*with* Žirabok, A. N.; Filippov, F. V.) Derivation of identifying tests for automata. **(80d:68064)**
Filippov, F. V. *See* **Danilov, V. V.; et al., (80d:68064)**
Žirabok, A. N. *See* **Danilov, V. V.; et al., (80d:68064)**

68D90 Transition nets

Fujino, Eiichi *See* **Miyazaki, Kiyonori; et al., 80f:68073**
Genrich, Hartmann J. (*with* Lautenbach, Kurt) Facts in place/transition-nets. **80g:68085**
Ishii, Naohiro *See* **Miyazaki, Kiyonori; et al., 80f:68073**
Jakubowski, Ryszard (*with* Szelc, Andrzej) Quasilinguistic representation of systems and its application. (Polish and Russian summaries) **80j:68047**
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Martin, Louise (*with* Reischer, Corina) On the modular nets. **80e:68159**
Memmi, G. Fuites et graphes à choix non imposé dans les réseaux de Petri. (English summary) **80e:68160a**
Fuites dans les réseaux de Petri. (English summary) **80e:68160b**
Mądowicz, Zdzisław B. Some structural properties of the periodic sum of finite automata. **80b:68079**
Miyazaki, Kiyonori (*with* Fujino, Eiichi; Ishii, Naohiro) On properties of the maximum periodic sequence realizable by a network of threshold elements. **80f:68073**
Moalla, M. (*with* Pulou, J.; Sifakis, Joseph) Synchronized Petri nets: a model for the description of non-autonomous systems. **80d:68075**
Pulou, J. *See* **Moalla, M.; et al., 80d:68075**
Reischer, Corina *See* **Martin, Louise, 80e:68159**
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Secondary classifications:

Best, E. *See* **Lauer, P. E.; et al., (80e:68060)**
Corsini, Paolo (*with* Frosini, Graziano) Interconnecting asynchronous control networks. **(80d:68068)**
David, René *See* **Silva, M., (80j:68021)**
Dolev, Danny Commutation properties and generating sets characterize slices of various synchronization primitives. **(80e:68053)**
Frosini, Graziano *See* **Corsini, Paolo, (80d:68068)**
Jakubowski, Ryszard (*with* Szelc, Andrzej) Functional graphs as an extension of Petri nets. II. Topological and algebraic interpretation of marking processes. (Polish and Russian summaries) **(80g:68089a)**
(*with* Szelc, Andrzej) Functional graphs as an extension of Petri nets. III. Safeness and deadlock of marked functional graphs. (Polish and Russian summaries) **(80g:68089b)**
Jotwani, N. D. (*with* Jump, J. Robert) Top-down design in the context of parallel programs. **(80e:68058)**
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Kotov, V. E. An algebra for parallelism based on Petri nets. **(80j:68020)**
Lauer, P. E. (*with* Best, E.; Shields, M. W.) On the problem of achieving adequacy of concurrent programs. **(80e:68060)**
Lipton, Richard J. (*with* Snyder, Lawrence) On synchronization and security. **(80b:68037)**
Moalla, M. (*with* Pulou, J.; Sifakis, Joseph) Réseaux de Petri synchronisés. **(80f:68006)**
Oja, Erkki *S*-orthogonal projection operators as asymptotic solutions of a class of matrix differential equations. **(80d:34015)**
Pulou, J. *See* **Moalla, M.; et al., (80f:68006)**
Shields, M. W. *See* **Lauer, P. E.; et al., (80e:68060)**
Sifakis, Joseph Structural properties of Petri nets. **(80d:68032)**
Realization of fault-tolerant systems by coding Petri nets. **(80k:94062)**
See also **Moalla, M.; et al., (80f:68006)**
Silva, M. (*with* David, René) Synthèse programmée des automatismes logiques décrits par réseaux de Petri: Une méthode de mise en oeuvre sur microcalculateur. (English summary) **(80j:68021)**
Snyder, Lawrence *See* **Lipton, Richard J., (80b:68037)**
Szelc, Andrzej *See* **Jakubowski, Ryszard, (80g:68089a)** *and* **Jakubowski, Ryszard, (80g:68089b)**
Toffoli, Tommaso Integration of the phase-difference relations in asynchronous sequential networks. **(80d:68067)**
Valk, Rüdiger Self-modifying nets, a natural extension of Petri nets. **(80d:68033)**

68D99 None of the above, but in this section

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Gordon, Henry G. An isomorphism of complete degrees of finite-state transformability. **80i:68044**
Hadler, M. I. *See* **Rocha, A. F.; et al., 80j:68048**
Popov, V. A. (*with* Skibenko, I. T.) Calculation of classes of partially specified automata with identified states. (Russian) **80h:68054**
Rocha, A. F. (*with* Françozo, E.; Hadler, M. I.; Balduino, M. A.) Neural languages. **80j:68048**
Skibenko, I. T. *See* **Popov, V. A., 80h:68054**

Secondary classifications:

Amagasa, Michio *See* **Tazaki, Eiichiro, (80j:94056)**
Herkenrath, Ulrich (*with* Theodorescu, Radu) General control systems. **(80h:93004)**
(Paulin, Gerhard) *See* **Warschawski, W. I., (80m:93005)**
Shingai, Ryuzo Maximum period of 2-dimensional uniform neural networks. **(80e:94031)**
Tazaki, Eiichiro (*with* Amagasa, Michio) Heuristic structure synthesis in a class of network systems using fuzzy automata. (Japanese. English summary) **(80j:94056)**
Theodorescu, Radu *See* **Herkenrath, Ulrich, (80h:93004)**
Warschawski, W. I. ★Kollektives Verhalten von Automaten. **(80m:93005)**

68Exx Discrete mathematics

68E05 Sorting, searching

Anisimov, A. V. (*with* Knuth, Donald E.) Inhomogeneous sorting. **80j:68049**
(*with* Knuth, Donald E.) Inhomogeneous sorting. **80i:68045**
Dobkin, David P. (*with* Munro, J. Ian) Time and space bounds for selection problems. **80d:68076**
Dobosiewicz, Włodzimierz The practical significance of D.P. sort revisited. **80e:68161b**
Ducoin, François Tri par adressage direct. (English summary) **80i:68046**
Emmons, Hamilton (*with* Rivaud, Juan M.) Physical sorting of coded documents. **80i:68047**
Ferretti, C. Some aspects of sorting in two dimensions. **80j:68050**
Gates, William H. (*with* Papadimitriou, Christos H.) Bounds for sorting by prefix reversal. **80j:68051**
Huits, Martin (*with* Kumar, Vipin) The practical significance of distributive partitioning sort. **80e:68161a**
Knuth, Donald E. *See* **Anisimov, A. V., 80i:68045** *and* **Anisimov, A. V., 80j:68049**
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Slutzki, Giora *See* **Engelfriet, Joost, 80e:68184**

Smeljanskiĭ, R. L. Construction of the solution of a problem by means of permutation rules. (Russian) **80i:68064**

Soisalon-Soininen, Eljas On the covering problem for left-recursive grammars. **80h:68064**

Specht, Johann *See* **Duske, Jürgen; et al., 80g:68094** *and* **Duske, Jürgen; et al., 80j:68058**

Sudborough, I. H. On the tape complexity of deterministic context-free languages. **80h:68065**

Szymanski, T. G. *See* **Hunt, Harry B., III, 80b:68087**

Takaoka, Tadao A definition of measures over language space. **80h:68066**

Topenčarov, Vladimir V. (*with* Lozanov, Roumen L.) Sur l'intersection des langages algébriques. **80m:68071**

Turov, V. A. Language formalization. (Russian) **80a:68093**

Uesu, Tadahiro A system of graph grammars which generates all recursively enumerable sets of labelled graphs. **80h:68067**

Urbanek, Friedrich J. *See* **Prodinger, Helmut, 80e:68195**

Vaishnavi, Vijay K. (*with* Wood, Derick) An approach to a unified theory of grammar and *L* forms. **80e:68198**

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Vians, Victor The structure of formal languages from the standpoint of measure theory. (Romanian. English summary) **80a:68094**

Wechler, Wolfgang Bemerkungen zur Fixpunkt-Semantik. **80f:68090**

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Wotschke, Detlef (*with* Wrathall, Celia) A note on classes of complements and the LBA problem. **80a:68095**

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Wrathall, Celia *See* **Wotschke, Detlef, 80a:68095**

Yehudai, Amiram A new definition for simple precedence grammars. **80g:68100**

Zielonka, Wojciech A direct proof of the equivalence of free categorial grammars and simple phrase structure grammars. **80a:68096**

Zubenko, V. V. Finite-return push-down automata. (Russian. English summary) **80c:68059**

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Bertoni, Alberto (*with* Mauri, Gian Carlo; Torelli, Mauro) Three efficient algorithms for counting problems. **(80g:68055)**

Calude, Cristian Categorical methods in computability. I. Recursive and nonprimitive recursive functions. (Romanian. English summary) **(80m:03110a)**

Categorical methods in computability. II. (Romanian. English summary) **(80m:03110b)**

Cochet, Yves Langages définis par des congruences. **(80d:20062)**

Ehrenfeucht, Andrzej (*with* Rosenberg, Grzegorz) Finding a homomorphism between two words is NP-complete. **(80j:68030)**

Fluance, Jean-Pierre Static and computational semantics of a definitional language. **(80e:68025)**

Fischer, Patrick C. (*with* Kintala, Chandra M. R.) Real-time computations with restricted nondeterminism. **(80f:68044)**

Freguglia, Paolo Giuseppe Peano and the forerunners of mathematical linguistics. (Italian. English summary) **(80j:01017)**

Friedman, Emily P. (*with* Greibach, Sheila A.) On equivalence and subclass containment problems for deterministic context-free languages. **(80a:68097)**

Gerwert, Dieter Measuring the similarity of complex structures by means of graph grammars. **(80e:68166)**

Ginsburg, Seymour (*with* Rounds, Erica M.) Dynamic syntax specification using grammar forms. **(80b:68014)**

Grabowski, Michal The algebraic properties of nets from a program-theoretical point of view. **(80b:68021)**

Greibach, Sheila A. *See* **Friedman, Emily P., (80a:68097)**

Heilbrunner, Stephan On the definition of ELR(k) and ELL(k) grammars. **(80d:68107)**

Hermes, Hans ★Aufzählbarkeit, Entscheidbarkeit, Berechenbarkeit. **(80b:03049)**

Hsieh, Wen Yau (*with* Shih, Hui Jan) Left cancellative elements in the monoid of languages. **(80j:20073)**

Ibarra, Oscar H. The unsolvability of the equivalence problem for ε-free NGSM's with unary input (output) alphabet and applications. **(80b:68070)**

Inoue, Katsushi (*with* Nakamura, Akira) Refinements of the powers of two-dimensional on-line tessellation acceptors and their variants. **(80g:68072)**

Kämmerer, W. Zur Synthese von DOL-Systemen. **(80d:68115)**

Kim, Ki Hang (*with* Roush, Fred W.) The semigroup of adjacency patterns of words. **(80h:20083)**

Kintala, Chandra M. R. *See* **Fischer, Patrick C., (80f:68044)**

Lassez, J.-L. (*with* Shih, Hui Jan) Factorization in the monoid of languages. **(80d:20063)**

Liu, Kuang Nan (*with* Shih, Hui Jan) Disjunctive pairs and related languages on a free monoid. **(80i:20056)**

Ljapin, E. S. Abstract characterization of partial groupoids of words with synonyms. **(80j:20056)**

(Marzollo, Angelo) *See* **Topics in artificial intelligence, (80a:68102)**

Mauri, Gian Carlo *See* **Bertoni, Alberto; et al., (80g:68055)**

Nakamura, Akira *See* **Inoue, Katsushi, (80g:68072)**

Nebeský, Ladislav A projectivity theorem for weakly connected digraphs. **(80a:05104)**

Păun, Gheorghe On some variants of the traveling salesman problem. A mathematical linguistic approach. (Romanian. English summary) **(80j:90109)**

Pavlidis, Theodosios *See* **Yannakakis, Mihalis, (80e:68174)**

(Peano, Giuseppe) *See* **Freguglia, Paolo, (80j:01017)**

Perrin, Dominique Séries formelles et combinatoires dans le monoïde libre. **(80e:20083)**

Pin, J.-E. Sur le monoïde syntactique de L^* lorsque L est un langage fini. (English summary) **(80b:20086)**

Plesnevič, G. S. Recognition of formal languages on one-dimensional iterative automata. (Russian. English summary) **(80b:68068)**

Reis, C. M. (*with* Shih, Hui Jan) Some properties of disjunctive languages on a free monoid. **(80d:20064)**

Riedewald, Günter Attribute grammars. **(80f:68019)**

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Rozenberg, Grzegorz (*with* Vermeir, D.) On acceptors of iteration languages. **(80d:68103)**

Satô, Kôjirô A decision procedure for the unique decipherability of multivalued encodings. **(80g:94044)**

Shih, Hui Jan *See* **Lassez, J.-L., (80d:20063); Reis, C. M., (80d:20064); Liu, Kuang Nan, (80i:20056)** *and* **Hsieh, Wen Yau, (80j:20073)**

Tiuryn, Jerzy Fixed-points and algebras with infinitely long expressions. I. Regular algebras. **(80a:68049)**

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Ukkonen, Esko Transformations to produce certain covering grammars. **(80d:68113)**

Veloso, Paulo A. S. Characterizing the regular prefix codes and right power-bounded languages. **(80g:94065)**

Vermeir, D. *See* **Rozenberg, Grzegorz, (80d:68103)**

Wasserman, Howard C. A second-order axiomatic theory of strings. **(80d:03038)**

Winkowski, Józef A formalism for describing non-sequential processes. **(80d:68037)**

Yannakakis, Mihalis (*with* Pavlidis, Theodosios) Topological characterization of families of graphs generated by certain types of graph grammars. **(80e:68174)**

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Arnold, André (*with* Latteux, Michel) A new proof of two theorems about rational transductions. **80g:68101**

Babičev, A. V. Automata that recognize languages generated by precedence grammars. (Russian) **80d:68101**

Barth, Gerhard Efficient non-context-free parsing. **80m:68072b**

Book, Ronald V. On languages accepted by space-bounded oracle machines. **80e:68200**

Buda, A. Languages of program machines. (Russian) **80j:68065**

Generalized sequential machine maps. **80f:68092**

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Culik, Karel, II (*with* Wood, Derick) Speed-varying OL systems. **80e:68201**

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Edmundson, H. P. (*with* Tung, Immanuel I.) A characterization of the recursiveness of an m-adic probabilistic language. **80b:68099**

Ehrenfeucht, Andrzej (*with* Rozenberg, Grzegorz) Every two equivalent DOL systems have a regular true envelope. **80m:68073**

Engelfriet, Joost A hierarchy of tree transducers. **80c:68060**

Friedman, Emily P. (*with* Greibach, Sheila A.) On equivalence and subclass containment problems for deterministic context-free languages. **80a:68097**

(*with* Greibach, Sheila A.) Monadic recursion schemes: the effect of constants. **80e:68202**

Greibach, Sheila A. Hierarchy theorems for two-way finite state transducers. **80c:68061**

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Hotz, Günter (*with* Ross, Rockford J.) LL(k)- und LR(k)-Invarianz von kontextfreien Grammatiken unter einer Transformation auf Greibach-Normalform. (English and Russian summaries) **80m:68074**
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Inoue, Katsushi (*with* Takanami, Itsuo) A note on cyclic closure operations. **80j:68067**
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Karhumäki, Juhani On commutative DTOL systems. **80m:68075**
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Lee, K. P. (*with* Rozenberg, Grzegorz) TIL systems and languages. **80c:68203**
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Magó, Gyula A. *A network of microprocessors to execute reduction languages. I.* **80i:68065**
Meersman, Robert (*with* Rozenberg, Grzegorz; Vermeir, D.) Persistent ETOL systems. **80c:68204**
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Naccarato, David (*with* Chien, Y. T.) Recursive methods for matrix inversion in pattern *recognition environments.* **80c:65082**
Oemrawsingh, H. (*with* Ollongren, A.) On the proof of a theorem by Chomsky-Hopcroft-Ullman. **80b:68101**
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Păun, Gheorghe Normal forms for bicolored-digraph-grammar systems. **80h:68070**
Prodinger, Helmut On the interpolation of DOL-sequences. **80k:68062**
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(*with* von Solms, S. H.) Rewriting systems with a clocking mechanism. **80e:68207**
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Yehudai, Amiram A note on the pumping lemma for regular languages. **80i:68066**

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Gécseg, Ferenc (*with* Steinby, Magnus) The algebraic theory of tree automata. I. (Hungarian) **(80b:68072)**
Greibach, Sheila A. Linearity is polynomially decidable for realtime pushdown store automata. **(80e:68106)**
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(*with* Takanami, Itsuo) A note on bottom-up pyramid acceptors. **(80c:68042)**
Jakubowski, Ryszard (*with* Szelc, Andrzej) Quasilinguistic representation of systems and its application. (Polish and Russian summaries) **(80j:68047)**
(*with* Łoboda, M.) Inference of a canonical system for the classification of machine elements. (Polish. English and Russian summaries) **(80c:68064)**
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Nakamura, Akira *See* **Inoue, Katsushi, (80f:68065)**
Perrot, J.-F. On regular semigroups, finite automata and prefix codes. **(80m:20052)**
Schwartz, Dietrich Kanonische Abbildungen und Eilenberg-Maschinen. **(80c:03041)**
Schwarz, Štefan A theorem on binary relations and infinite regular languages. **(80i:20057)**
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Szelc, Andrzej *See* **Jakubowski, Ryszard, (80j:68047)**
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68F15 Stochastic models

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Paz, Azaria A generalization of the Cayley Hamilton theorem and possible application *to formal series theory.* **80d:68104**
Peleg, Shmuel Maximal derivations for probabilistic strings in stochastic languages. **80f:68095**
Saheb-Djahromi, N. Probabilistic LCF. **80i:68067**
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Turakainen, Paavo *A note on noncontext-free rational stochastic languages.* **80a:68097**

68F20 Semantics

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Plotkin, G. T^{ω} as a universal domain. **80d:68105**
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Buttelmann, H. William *See* **Krishnaswamy, Ramachandran, (80j:68069a)**
Čebotar', K. S. Order of calculation of semantic attributes. **(80m:68018)**
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Fal'k, V. N. *See* **Kutepov, V. P., (80c:68012)**
Krishnaswamy, Ramachandran (*with* Buttelmann, H. William) Formal methodology of translation. I. Semantic preserving translations. **(80j:68069a)**
Kutepov, V. P. (*with* Fal'k, V. N.) Models of asynchronous calculations of values of functions in the language of functional schemes. (Russian) **(80c:68012)**
Lamèche-Gérardin, Khyra Quotient de Hadamard de séries rationnelles en variables non commutatives. **(80k:13008)**
(Posner, Roland) *See* **Cresswell, Max J., (80g:03022)**
(Wiese, Bernd) *See* **Cresswell, Max J., (80g:03022)**

68F25 Parsing

Aoe, Junichi (*with* Yamamoto, Yoneo) Simplification of LR(1) parsers by GO TO graph. **80k:68065**
Auty, David *See* **Cohen, Jacques; et al., 80f:68096**
Buttelmann, H. William *See* **Krishnaswamy, Ramachandran, 80j:68069a** *and* **Krishnaswamy, Ramachandran, 80j:68069b**
Cohen, Jacques (*with* Sitver, Robin; Auty, David) Evaluating and improving recursive descent parsers. **80f:68096**
Fischer, C. N. (*with* Tai, Kuo Chung; Milton, D. R.) Immediate error detection in strong LL(1) parsers. **80f:68097**
Frenju, M. A global top-down error correcting parser. **80a:68100**
Heilbrunner, Stephan On the definition of ELR(k) and ELL(k) grammars. **80d:68107**
Jones, Neil D. *See* **Sebesta, Robert W., 80b:68103**
Kobzareva, T. Ju. (*with* Lesskis, G. A.) An automatic system of morphological text segmentation. (Russian. English and German summaries) **80k:68066**
Koit, M. The semantic analysis of a simple text. (Russian. Estonian and German summaries) **80a:68101**
Křetínský, M. Semi-top-down syntax analysis of precedence grammar. **80d:68108**
Krishnaswamy, Ramachandran (*with* Buttelmann, H. William) Formal methodology of translation. I. Semantic preserving translations. **80j:68069a**
(*with* Buttelmann, H. William) Formal methodology of translation. II. Capabilities and limitations. **80j:68069b**
Krjučkova, E. N. A classification of context-free grammars that depends on the complexity of the grammatical analysis. (Russian) **80e:68210**
Król, Jerzy (*with* Lembas, Jacek; Rosek, Jan) Syntactical analysis based on simple precedence grammar. (Polish. Russian and English summaries) **80g:68107**
LaLonde, Wilf R. Constructing LR parsers for regular right part grammars. **80d:68109**
Lembas, Jacek *See* **Król, Jerzy; et al., 80g:68107**
Lesskis, G. A. *See* **Kobzareva, T. Ju., 80k:68066**
Makinouchi, Akifumi On single production elimination in simple LR(k) environment. **80d:68110**
Mayer, Otto A framework for producing deterministic canonical bottom-up parsers. **80d:68111**
On deterministic canonical bottom-up-parsing. **80k:68067**
Mehlhorn, Kurt Parsing macro grammars top down. **80h:68071**
Milton, D. R. *See* **Fischer, C. N.; et al., 80f:68097**
Nijholt, Anton On the parsing and covering of simple chain grammars. **80d:68112**
Pager, David The lane-tracing algorithm for constructing LR(k) parsers and ways of enhancing its efficiency. **80e:68211**
Rosek, Jan *See* **Król, Jerzy; et al., 80g:68107**
Sebesta, Robert W. (*with* Jones, Neil D.) Parsers for indexed grammars. **80b:68103**
Sitver, Robin *See* **Cohen, Jacques; et al., 80f:68096**
Škil'njak, S. S. Classification of syntactical definitions that are oriented towards the strategy of scanning. (Russian) **80j:68070**
Tai, Kuo Chung *See* **Fischer, C. N.; et al., 80f:68097**

Ukkonen, Esko Transformations to produce certain covering grammars. **80d:68113**
Williams, M. H. Conditions for extended operator precedence parsing. **80f:68098**
Wiszniewski, Jacek ★Konstrukcja i optymalizacja analizatorow LR(*k*). (Polish) [Construction and optimization of LR(*k*) parsers] **80d:68114**
Yamamoto, Yoneo *See* **Aoe, Junichi, 80k:68065**

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Fishman, George S. (*with* Moore, Louis R.) Estimating the mean of a correlated binary sequence with an application to discrete event simulation. **80e:68243)**
Ginsburg, Seymour (*with* Wood, Derick) Precedence relations in grammar forms. **(80b:68085)**
(*with* Leong, Benton; Mayer, Otto; Wotschke, Detlef) On strict interpretations *of grammar forms.* **(80f:68083)**
Harrison, Michael A. ★Introduction to formal language theory. **(80h:68060)**
Hladký, Miroslav Precedence-oriented parsing and OL-systems. (Arabic summary) **(80a:68084)**
Joshi, Aravind K. *See* **Levy, Leon S., (80c:68056)**
Leong, Benton *See* **Ginsburg, Seymour; et al., (80f:68083)**
Levy, Leon S. (*with* Joshi, Aravind K.) Skeletal structural descriptions. **(80c:68056)**
Mayer, Otto *See* **Ginsburg, Seymour; et al., (80f:68083)**
Moore, Louis R. *See* **Fishman, George S., (80e:68243)**
Shyamasundar, Rudrapatna Kallikote LR-deterministic grammars. (German and Russian summaries) **(80a:68092)**
Wood, Derick *See* **Ginsburg, Seymour, (80b:68085)**
Wotschke, Detlef *See* **Ginsburg, Seymour; et al., (80f:68083)**

68F30 Translation of natural languages

Gladkiĭ, A. V. *Mathematical methods for studying natural languages. (Bulgarian)* **80h:68072**
Králík, Jan Seriation in quantitative linguistics. **80k:68068**
(Pasi, M.) *See* **Gladkiĭ, A. V., 80h:68072**
Sanchez, Elie On possibility qualification in natural languages. **80i:68068**

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Barwise, K. Jon On branching quantifiers in English. **(80h:03041)**
Buttelmann, H. William *See* **Krishnaswamy, Ramachandran, (80j:68069b)**
Krishnaswamy, Ramachandran (*with* Buttelmann, H. William) Formal methodology of translation. *II.* Capabilities and limitations. **(80j:68069b)**

68F99 None of the above, but in this section

Barr, Michael The theory of theories as a model of syntax acquisition. **80j:68071**
Berstel, Jean Ensembles reconnaissables de nombres. **80e:68212**
Kimmerer, W. Zur Synthese von DOL-Systemen. **80d:68115**
Kümmel, Peter Information analysis by formalizing content of natural languages. **80h:68073**

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Balduino, M. A. *See* **Rocha, A. F.; et al., (80j:68048)**
Duval, Jean-Pierre Une caractérisation des fonctions périodiques. (English summary) **(80j:26020)**
Eshragh, F. (*with* Mamdani, E. H.) A general approach to linguistic approximation. **(80g:94115)**
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Hadler, M. I. *See* **Rocha, A. F.; et al., (80j:68048)**
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(Krotov, G. I.) *See* **Self-organization of cybernetic systems, (80k:93014)**
Cybernetic systems *See* **Self-organization of cybernetic systems, (80k:93014)**
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Doberkat, Ernst-Erich Convergence theorems for stochastic automata and learning systems. **(80j:68044)**
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Aleksanjan, P. G. . The reconstruction of vectors by their fragments. (Russian. Armenian summary) **(80k:05082)**

Batasova, V. S. (*with* Gorickiĭ, Ju. A.) Algorithms for determining indistinguishable

situations in the design of systems that measure the positions of groups of points. (Russian) (80c:93018)

Bellini, Sandro (*with* Piacentini, Maurizio; Cafforio, Ciro; Rocca, Fabio) Compensation of tissue absorption in emission tomography. (80h:94007)

Ben-Bassat, Moshe f-entropies, probability of error, and feature selection. (80g:94023)

Bertero, M. (*with* de Mol, C.; Viano, G. A.) On the problems of object restoration and image extrapolation in optics. (80d:78004)

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Chang, C. L. (*with* Slagle, J. R.) Using rewriting rules for connection graphs to prove theorems. 80j:68077

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Jadykin, S. A. *See* **Matrosov, V. M.; et al.,** 80m:68082

Karatuev, V. G. *See* **Matrosov, V. M.; et al.,** 80m:68082

Kirsanov, G. M. (*with* Ceĭtlin, G. E.) Independence of a system of axioms in algorithmic algebras. (Russian) 80d:68125

Kitahashi, Tadahiro *See* **Ogawa, Hitoshi; et al.,** 80g:68119 *and* **Ogawa, Hitoshi; et al.,** 80g:68120

Matrosov, V. M. (*with* Vasil'ev, S. N.) Comparison principle for automatic derivation of theorems. I. 80c:68067

(*with* Vasil'ev, S. N.) A comparison principle for theorem deducing. II. 80j:68078

(*with* Vasil'ev, S. N.; Karatuev, V. G.; Novikov, M. A.; Sumenkov, E. A.; Jadykin, S. A.) Machine deduction of theorems on dynamic properties with vector functions of Lyapunov. 80m:68082

Mitani, Suketaka Completion theory performed on the basis of LJ. 80k:68112

Mogilevskiĭ, G. L. (*with* Ostrouhov, D. A.) On a mechanical propositional calculus using Smullyan's analytical tableaux. (Russian. English summary) 80c:68113

Novikov, M. A. *See* **Matrosov, V. M.; et al.,** 80m:68082

Ogawa, Hitoshi (*with* Kitahashi, Tadahiro; Tanaka, Kokichi) Minimum deduction process by D graph deduction. 80g:68119

(*with* Kitahashi, Tadahiro; Tanaka, Kokichi) Formal deduction based on a directed AND/OR graph and its completeness. 80g:68120

Ostrouhov, D. A. *See* **Mogilevskiĭ, G. L.,** 80b:68113

Pankov, P. S. A combined method for proving certain theorems of mathematical analysis via a computer. (Russian. English summary) 80k:68084

Slagle, J. R. *See* **Chang, C. L.,** 80j:68077

Štědroň, B. Doing arithmetic with resolution. (Russian summary) 80a:68111

Sumenkov, E. A. *See* **Matrosov, V. M.; et al.,** 80m:68082

Tanaka, Kokichi *See* **Ogawa, Hitoshi; et al.,** 80g:68119 *and* **Ogawa, Hitoshi; et al.,** 80g:68120

Vasil'ev, S. N. *See* **Matrosov, V. M.,** 80c:68067; **Matrosov, V. M.,** 80j:68078 *and* **Matrosov, V. M.; et al.,** 80m:68082

Secondary classifications:

Baldwin, J. F. (*with* Pilsworth, B. W.) Axiomatic approach to implication for approximate reasoning with fuzzy logic. (80m:03058)

Bibel, W. Tautology testing with a generalized matrix reduction method. (80i:03023)

(Feferman, Solomon) *See* **How convincing is a proof?,** (80m:03024)

Gergely, T. (*with* Vershinin, K. P.) Model theoretical investigation of theorem proving methods. (80b:03015)

Jefferson, David *See* **Suzuki, Norihisa,** (80m:68047)

(Manin, Ju. I.) *See* **How convincing is a proof?,** (80m:03024)

(Neumann, B. H.) *See* **How convincing is a proof?,** (80m:03024)

Pilsworth, B. W. *See* **Baldwin, J. F.,** (80m:03058)

Suzuki, Norihisa (*with* Jefferson, David) Verification decidability of Presburger array programs. (80m:68047)

Vershinin, K. P. *See* **Gergely, T.,** (80b:03015)

How convincing is a proof? How convincing is a proof? (80m:03024)

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Baudet, Gérard M. An analysis of the full alpha-beta pruning algorithm. 80e:68232

Cavallo, Roger E. (*with* Klir, George J.) Reconstructability analysis of multidimensional relations: a theoretical basis for computer-aided determination of acceptable systems models. 80i:68080

Efimov, E. I. Automatic learning by a problem solver. (Russian. English summary) 80e:68233

Guida, Giovanni (*with* Mandrioli, Dino; Somalvico, Marco) An integrated model of problem solver. 80e:68234

Jakubowski, Ryszard (*with* Szelc, Andrzej) Applications of formal languages and fuzzy automata in problem solving. (Polish and Russian summaries) 80i:68081

Klir, George J. *See* **Cavallo, Roger E.,** 80i:68080

Kramosil, Ivan Some remarks on probabilities over formalized languages. 80e:68235

(Madatjan, H. A.) *See* **Solov'ev, N. A.,** 80b:68114

Mandrioli, Dino *See* **Guida, Giovanni; et al.,** 80e:68234

Shimura, Masamichi Heuristic problem solving by tree search. 80d:68126

Solov'ev, N. A. ★Тесты (теория, построение, применение). (Russian) [Tests (theory, structure, application)] 80b:68114

Somalvico, Marco *See* **Guida, Giovanni; et al.,** 80e:68234

Szelc, Andrzej *See* **Jakubowski, Ryszard,** 80i:68081

Secondary classifications:

Havel, Ivan M. (*with* Kramosil, Ivan) A stochastic approach to robot plan formation. (80f:68107)

Kramosil, Ivan *See* **Havel, Ivan M.,** (80f:68107)

68G99 None of the above, but in this section

Aksenov, G. S. (*with* Voroneckaja, D. K.; Fomin, V. N.) A construction of program movements of a manipulator with the aid of a computer. 80i:68082

Aleksandrov, V. V. (*with* Lačinov, V. M.; Poljakov, A. O.) Synthesis and application of a multidimensional analogue of a Peano curve. (Russian) **80g:68121**
Aoki, Kyota (*with* Tanaka, Kokichi) Interactive systems and their abilities. **80j:68079**
Fomin, V. N. *See* **Aksenov, G. S.; et al., 80i:68082**
Havel, Ivan M. (*with* Kramosil, Ivan) A stochastic approach to robot plan formation. **80f:68107**
Kramosil, Ivan *See* **Havel, Ivan M., 80f:68107**
Lačinov, V. M. *See* **Aleksandrov, V. V.; et al., 80g:68121**
Minaev, L. N. *See* **Vereščagin, A. F., 80h:68078**
Poljakov, A. O. *See* **Aleksandrov, V. V.; et al., 80g:68121**
Tanaka, Kokichi *See* **Aoki, Kyota, 80j:68079**
Vereščagin, A. F. (*with* Minaev, L. N.) Principles of construction of specialized computers for positional supervisor control of a manipulator. **80h:68078**
Voroneckaja, D. K. *See* **Aksenov, G. S.; et al., 80i:68082**

Secondary classifications:

Chang, Sheldon S. L. Theory of linear processors and its applications. **(80m:94001)**
Devroye, Luc P. (*with* Wagner, Terry J.) Distribution-free performance bounds for potential function rules. **(80h:62044)**
Goto, Motinori (*with* Kao, Shinji; Ninomiya, Tomoko) Axiomatization of Kleene's three-valued logic by a computer. **(80m:03052)**
Kao, Shinji *See* **Goto, Motinori; et al., (80m:03052)**
Ninomiya, Tomoko *See* **Goto, Motinori; et al., (80m:03052)**
Wagner, Terry J. *See* **Devroye, Luc P., (80h:62044)**

68H05 Information retrieval

Afanas'ev, M. Ju. *See* **Aronovič, A. B., 80i:68083**
Aho, A. (*with* Sagiv, Y.; Ullman, Jeffrey D.) Equivalences among relational expressions. **80f:68108**
Ajtai, Miklós (*with* Komlós, János; Szemerédi, Endre) There is no fast single hashing algorithm. **80a:68112**
Al-Fedaghi, S. S. (*with* Chin, Y. H.) Algorithmic approach to the consecutive retrieval property. **80h:68079**
Ancona, M. (*with* Antoy, S.) Weighted random search in hash tables. (Italian. English summary) **80j:68080**
Antoy, S. *See* **Ancona, M., 80j:68080**
Aronovič, A. B. (*with* Afanas'ev, M. Ju.) Optimization of data surplus in information systems. (Russian) **80i:68083**
Avetisjan, D. O. Functional efficiency and retrieval potential of documentary systems. (Russian. English and German summaries) **80j:68081**
Bancilhon, François On the completeness of query languages for relational data bases. **80d:68127**
Bolour, Azad Optimality properties of multiple-key hashing functions. **80g:68122**
Brodec'kiĭ, G. L. Optimization of the period of information storing with random memory blocking. (Russian. English summary) **80i:68084**
Brown, Mark R. (*with* Tarjan, Robert Endre) A representation for linear lists with movable fingers. **80f:68109**
Carter, J. Lawrence (*with* Wegman, Mark N.) Universal classes of hash functions. **80f:68110a**
See also **Markowsky, George; et al., 80d:68131** *and* **Sarwate, Dilip V., 80f:68110b**
Chandra, Ashok K. *See* **Strong, H. R.; et al., 80e:68242**
Chen, David T. *See* **Ng, Peter Ann-Beng, 80e:68240**
Chenkeli, T. I. Axiomatic approach to the description of descriptor information-search languages. (Russian. English and German summaries) **80b:68115**
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Cleary, John Gerald Analysis of an algorithm for finding nearest neighbors in Euclidean space. **80e:68236**
DeMillo, Richard (*with* Dobkin, David P.; Lipton, Richard J.) Combinatorial inference. **80b:68116**
Derochette, D. *See* **Gelenbe, Erol, 80a:68113**
Devillers, R. (*with* Louchard, G.) Hashing techniques, a global approach. **80i:68085**
Dobkin, David P. *See* **DeMillo, Richard; et al., 80b:68116**
Easton, M. C. Model for database reference strings based on behavior of reference clusters. **80b:68117**
van Emden, M. H. Computation and deductive information retrieval. **80i:68086**
Franklin, W. Randolph Padded lists: set operations in expected $\theta(\log \log N)$ time. **80i:68087**
Galil, Zvi On improving the worst case running time of the Boyer-Moore string matching algorithm. **80m:68083**
(Gallaire, Hervé) *See* **Logic and data bases, 80i:68089**
Gelenbe, Erol (*with* Derochette, D.) Performance of rollback recovery systems under intermittent failures. **80a:68113**
(*with* Sevcik, Ken) Analysis of update synchronization for multiple copy data bases. **80h:68086**
Gonnet, Gaston H. (*with* Munro, J. Ian) Efficient ordering of hash tables. **80e:68237**
Goto, Eiichi *See* **Ida, Tetsuo, 80d:68128**
Gudes, Ehud (*with* Hoffman, Anthony) A note on: "An optimal evaluation of Boolean expressions in an online query system" [Comm. ACM **20** (1977), no. 5, 344–347; MR 55 #9627] by M. Z. Hanani. **80k:68085**
Gulbas, Leo J. The analysis of hashing techniques that exhibit k-ary clustering. **80a:68114**
Gusakova, S. M. Modeling of information retrieval systems by algebraic models of binary type. (Russian. English and German summaries) **80k:68086**
Haccoun, David A Markov chain analysis of the sequential decoding metric. **80k:68087**
(Hanani, M. Z.) *See* **Gudes, Ehud; et al., 80k:68085**
Hoffman, Anthony *See* **Gudes, Ehud, 80k:68085**
Ida, Tetsuo (*with* Goto, Eiichi) Parallel hash algorithms for virtual key index tables. **80d:68128**
Imada, Toshiaki *See* **Sone, Satoru; et al., 80g:68123**
Jaegermann, Michal Information storage and retrieval systems with incomplete information. I. **80d:68129**
Komlós, János *See* **Ajtai, Miklós; et al., 80a:68112**
Koulkowska, Beata Continuous informational systems. **80d:68130**
Krámli, András (*with* Pergel, J.) The statistical behavior of a characteristic of the insertion algorithm "batched hashing and linear probing". **80b:68118**
Larson, Per-Åke Frequency loading and linear probing. **80e:68238**
Lipton, Richard J. *See* **DeMillo, Richard; et al., 80b:68116**
Lodi, E. (*with* Luccio, Fabrizio; Mugnai, C.; Pagli, Linda) On two-dimensional data organization. I. **80i:68088**
Louchard, G. *See* **Devillers, R., 80i:68085**
Luccio, Fabrizio *See* **Lodi, E.; et al., 80i:68088**
Markowsky, George (*with* Carter, J. Lawrence; Wegman, Mark N.) Analysis of a universal class of hash functions. **80d:68131**
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Materna, Pavel Theory of types and data description. **80b:68119**
Mehlhorn, Kurt Dynamic binary search. **80h:68081**
Mendelson, Haim (*with* Yechiali, Uri) Performance analysis of the chaining method for random-access addressing. **80e:68239**
(*with* Yechiali, Uri) Performance measures for ordered lists in random-access files. **80k:68088**
Merrett, T. H. QT logic: simpler and more expressive than predicate calculus. **80f:68111**
(Minker, Jack) *See* **Logic and data bases, 80i:68089**
Mugnai, C. *See* **Lodi, E.; et al., 80i:68088**
Munro, J. Ian *See* **Gonnet, Gaston H., 80e:68237**
Ng, Peter Ann-Beng (*with* Chen, David T.) A note on a graph-structural approach to the generalization of data management systems. **80e:68240**
Pagli, Linda *See* **Lodi, E.; et al., 80i:68088**
Pergel, J. *See* **Krámli, András, 80b:68118**
Raś, Zbigniew On information storage and retrieval systems, an algebraic approach. I. **80d:68132**
Reiss, Steven P. Security in databases: a combinatorial study. **80f:68112**
Rosenberg, Arnold L. (*with* Snyder, Lawrence) Minimal-comparison 2, 3-trees. **80a:68115**
Sagiv, Y. *See* **Aho, A.; et al., 80f:68108**
Sang Ajang, Gerard J. M. (*with* Teer, Frank) An efficient algorithm for detection of combined occurrences. **80e:68241**
Santoro, Nicola Conditions for the efficiency of generalized parking functions. **80j:68082**
Sarwate, Dilip V. A note on: "Universal classes of hash functions" [J. Comput. System Sci. **18** (1979), no. 2, 143–154; MR 80f:68110a] by J. L. Carter and M. N. Wegman. **80f:68110b**
Sevcik, Ken *See* **Gelenbe, Erol, 80h:68080**
Shell, B. A. Median split trees: a fast lookup technique for frequently occurring keys. **80a:68116**
Snyder, Lawrence *See* **Rosenberg, Arnold L., 80a:68115**
Sone, Satoru (*with* Utsunomiya, Toshio; Imada, Toshiaki) Memory machine that has some functions of the human brain. **80g:68123**
State, Luminița Toward a theory of cluster analysis. **80a:68117**
Strong, H. R. (*with* Markowsky, George; Chandra, Ashok K.) Search within a page. **80e:68242**
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Traczyk, Tadeusz Common extension of Boolean informational systems. **80d:68133**
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Wegman, Mark N. *See* **Markowsky, George; et al., 80d:68131; Carter, J. Lawrence, 80f:68110a** *and* **Sarwate, Dilip V., 80f:68110b**
Yechiali, Uri *See* **Mendelson, Haim, 80e:68239** *and* **Mendelson, Haim, 80k:68088**
Zvegintzov, N. Partial-match retrieval in an index sequential directory. **80m:68084**
Data bases *See* **Logic and data bases, 80i:68089**
Logic and data bases ★Logic and data bases. **80i:68089**
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Logic and Data Bases *See* **Logic and data bases, 80i:68089**
Toulouse *See* **Logic and data bases, 80i:68089**

Secondary classifications:

Allen, Brian (*with* Munro, J. Ian) Self-organizing binary search trees. **(80a:68034)**
Bernstein, Philip A. (*with* Shipman, David W.; Wong, Wing S.) Formal aspects of serializability in database concurrency control. **(80f:68021)**
Bitner, James R. Heuristics that dynamically organize data structures. **(80i:68010)**
Boudarenko, V. A. *See* **Rublev, V. S.; et al., (80f:68025)**
Brodec'kiĭ, G. L. A utilization of redundant equipment in systems with periodic memorization of the results. (Russian. English summary) **(80c:93131)**
Brouwer, A. E. On associative block designs. **(80d:05009)**
Chang, L. C. (*with* Pradhan, D. K.) A graph-structural approach for the generalization of data management systems. **(80e:68044)**
Choy, D. M. (*with* Wong, C. K.) Optimal α-β trees with capacity constraint. **(80a:68038)**
Coffman, Edward G., Jr. (*with* Hofri, Micha) A class of FIFO queues arising in computer systems. **(80c:68024)**
Crolotte, Alain (*with* Pearl, Judea) Elasticity conditions for storage versus error exchange in question-answering systems. **(80m:94046)**
Culik, Karel, II (*with* Maurer, Hermann) Secure information storage and retrieval using new results in cryptography. **(80h:68010)**
Davida, George I. *See* **Kam, John B., (80b:68031)** *and* **Kam, John B., (80b:68013)**
Deo, Narsingh Minimum-length fundamental cycle set. **(80i:68050)**

Dobkin, David P. (*with* Lipton, Richard J.; Reiss, Steven P.) Aspects of the database security problem. (80b:68027)
Du, H. C. *See* **Lin, W. C.; et al.,** (80j:68014)
Ducrin, François Tri par adressage direct. (English summary) (80i:68046)
Emmons, Hamilton (*with* Rivaud, Juan M.) Physical sorting of coded documents. (80i:68047)
Fischer, Th. Über universelle Codierungen und Suchprozesse. (80i:94007)
Flajolet, Philippe Analyse en moyenne de la détection des arbres partiels. (80g:68087)
Gorikov, P. V. Identities of regular functions over the algebra of data structures. (Russian. English summary) (80i:68014)
Guibas, Leo J. (*with* Sedgewick, Robert) A dichromatic framework for balanced trees. (80e:68168)
Gull, W. E. (*with* Jenkins, M. A.) Recursive data structures in APL. (80b:68028)
Hofri, Micha *See* **Coffman, Edward G., Jr.,** (80c:68024)
Horibe, Yasuichi (*with* Nemetz, Tibor O. H.) On the max-entropy rule for a binary search tree. (80f:68076)
Hu, T. C. (*with* Kleitman, Daniel J.; Tamaki, Jeanne K.) Binary trees optimum under various criteria. (80k:68049)
Jenkins, M. A. *See* **Gull, W. E.,** (80b:68028)
Jullien, G. A. Residue number scaling and other operations using ROM arrays. (80a:68006)
Kam, John B. (*with* Davida, George I.) A structured design of substitution-permutation encryption network. (80b:68031)
(*with* Davida, George I.) Structured design of substitution-permutation encryption networks. (80h:68013)
Kleitman, Daniel J. *See* **Hu, T. C.; et al.,** (80k:68049)
Knuth, Donald E. Mathematical typography. (80c:00003)
Kogan, Ja. A. (*with* Litvin, V. G.; Oragvelidze, T. I.) On the analysis of the capacity of a memory device on a magnetic drum. (Russian. English and Georgian summaries) (80g:68048)
Kundu, Sukhamay An intermediate-value theorem for optimum tree valuation. (80h:68055)
Lee, R. C. T. *See* **Lin, W. C.; et al.,** (80j:68014)
Letac, Gérard ★Chaînes de Markov sur les permutations. (80k:60083)
Lin, W. C. (*with* Lee, R. C. T.; Du, H. C.) Common properties of some multiattribute file systems. (80j:68014)
Lipski, Witold, Jr. On strings containing all subsets as substrings. (80e:05009)
Lipton, Richard J. *See* **Dobkin, David P.; et al.,** (80b:68027)
Litvin, V. G. *See* **Kogan, Ja. A.; et al.,** (80g:68048)
Lueker, George S. A data structure for orthogonal range queries. (80e:68047)
Malina, Witold *See* **Sobczak, Wojciech,** (80c:94001)
Markovskiĭ, A. V. (*with* Šipilina, L. B.) Machine realization of operations with bracketed Boolean expressions. (Russian) (80b:94040)
Maurer, Hermann *See* **Culik, Karel, II,** (80h:68010)
Mendelzon, Alberto O. On axiomatizing multivalued dependencies in relational databases. (80f:68024)
Morris, S. Brent (*with* Valliere, Arthur, III; Wisniewski, Richard A.) Processes for random and sequential accessing in dynamic memories. (80b:68009)
Munro, J. Ian *See* **Allen, Brian,** (80a:68034)
Nelson, P. R. A prediction interval search scheme for the move-to-the-front replacement algorithm. (80k:68010)
Nemetz, Tibor O. H. *See* **Horibe, Yasuichi,** (80f:68076)
(Neuhold, Erich J.) *See* **Formal description of programming concepts,** (80d:68004)
Oragvelidze, T. I. *See* **Kogan, Ja. A.; et al.,** (80g:68048)
Pearl, Judea *See* **Crolotte, Alain,** (80m:94046)
Pradhan, D. K. *See* **Chang, L. C.,** (80e:68044)
Reiss, Steven P. *See* **Dobkin, David P.; et al.,** (80b:68027)
Rivaud, Juan M. *See* **Emmons, Hamilton,** (80i:68047)
Rublev, V. S. (*with* Bondarenko, V. A.; Sokolov, V. A.) Simultaneous ordering of input data structures and of output data generation. (Russian) (80f:68025)
Sedgewick, Robert *See* **Guibas, Leo J.,** (80e:68168)
Shipman, David W. *See* **Bernstein, Philip A.; et al.,** (80f:68021)
Šipilina, L. B. *See* **Markovskiĭ, A. V.,** (80b:94040)
Sobczak, Wojciech (*with* Malina, Witold) ★Metody selekcji informacji. (Polish) [Methods of information selection] (80c:94001)
Sokolov, V. A. *See* **Rublev, V. S.; et al.,** (80f:68025)
Srecov, V. I. Optimization of multilevel organization of data. (80k:68018)
Tamaki, Jeanne K. *See* **Hu, T. C.; et al.,** (80k:68049)
Ustersuer, Karl Dynamic weighted binary search trees. (80h:68057)
Valliere, Arthur, III *See* **Morris, S. Brent; et al.,** (80b:68009)
Wisniewski, Richard A. *See* **Morris, S. Brent; et al.,** (80b:68009)
Wong, C. K. *See* **Choy, D. M.,** (80a:68038)
Wong, Wing S. *See* **Bernstein, Philip A.; et al.,** (80f:68021)
Formal description of programming concepts ★Formal description of programming concepts. (80d:68004)
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Formal Description of Programming Concepts *See* **Formal description of programming concepts,** (80d:68004)
Programming concepts *See* **Formal description of programming concepts,** (80d:68004)
St. Andrews, N.B. *See* **Formal description of programming concepts,** (80d:68004)

68Jxx Simulation [See also 65Cxx.]

(Adam, Nabil R.) *See* **Current issues in computer simulation,** 80m:68085
(Dogramaci, Ali) *See* **Current issues in computer simulation,** 80m:68085
Computer simulation *See* **Current issues in computer simulation,** 80m:68085
Current issues in computer simulation ★Current issues in computer simulation. 80m:68085

Secondary classifications:

(Bellner, Heinz) *See* **Measuring, modelling and evaluating computer systems,** (80c:68004)
(Chandy, K. Mani) *See* **Computer performance,** (80d:68002)
(Gelenbe, Erol) *See* **Measuring, modelling and evaluating computer systems,** (80c:68004)
(Grinberg, È. Ja.) *See* **Mathematical modeling,** (80d:94027)
(Reiser, Martin) *See* **Computer performance,** (80d:68002)
Bad Godesberg *See* **Measuring, modelling and evaluating computer systems,** (80c:68004)
Computer performance ★Computer performance. (80d:68002)
Computer system modeling *See* **Computer performance,** (80d:68002)
Computer systems *See* **Measuring, modelling and evaluating computer systems,** (80c:68004)
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Computer System Modeling *See* **Computer performance,** (80d:68002)
Mathematical modeling ★Математическое моделирование. (Russian) [Mathematical modeling] (80d:94027)
Measuring, modelling and evaluating computer systems ★Measuring, modelling and evaluating computer systems. (80c:68004)
Modelling *See* **Measuring, modelling and evaluating computer systems,** (80c:68004)
Symposium:
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Yorktown Heights, N.Y. *See* **Computer performance,** (80d:68002)

68J05 Simulation (analog, hybrid, etc.)

Carson, John S. *See* **Law, Averill M.,** 80g:68125
Chandy, K. Mani (*with* Misra, Jayadev) Distributed simulation: a case study in design and verification of distributed programs. 80f:68113
Clark, Gordon M. Recursive estimation of the variance of the sample average. 80m:68086
Engelbrecht-Wiggans, Richard (*with* Maxwell, William L.) Analysis of the time indexed list procedure for synchronization of discrete event simulations. 80a:68118
Erber, T. (*with* Everett, P.; Johnson, P. W.) The simulation of random processes on digital computers with Čebyšev mixing transformations. 80g:68124
Everett, P. *See* **Erber, T.; et al.,** 80g:68124
Fishman, George S. (*with* Moore, Louis R.) Estimating the mean of a correlated binary sequence with an application to discrete event simulation. 80e:68243
Johnson, P. W. *See* **Erber, T.; et al.,** 80g:68124
Kanada, Hajime Theoretical consideration of the digital simulation containing unknown states. 80e:68068
Karbovskiĭ, I. N. On the economy of simulation of unbounded queues. 80j:68083
Law, Averill M. (*with* Carson, John S.) A sequential procedure for determining the length of a steady-state simulation. 80g:68125
Lewis, Peter A. W. (*with* Shedler, Gerald S.) Simulation of nonhomogeneous Poisson processes by thinning. 80k:68089
Maxwell, William L. *See* **Engelbrecht-Wiggans, Richard,** 80a:68118
Misra, Jayadev *See* **Chandy, K. Mani,** 80f:68113
Moore, Louis R. *See* **Fishman, George S.,** 80e:68243
Shedler, Gerald S. *See* **Lewis, Peter A. W.,** 80k:68089

Secondary classifications:

Arvillias, A. C. (*with* Maritsas, D. G.) Partitioning the period of a class of *m*-sequences and application to pseudorandom number generation. (80i:65006)
Banjević, D. (*with* Ivković, Z.) A definition of regularity and randomness based on ideas of A. N. Kolmogorov. (Serbo-Croatian. English summary) (80k:60005)
Cha, C. W. *See* **Ozguner, F.; et al.,** (80k:94036)
Donath, W. E. *See* **Ozguner, F.; et al.,** (80k:94036)
Duhamel, P. (*with* Rault, J.-C.) Automatic test generation techniques for analog circuits and systems: a review. (80g:94072)
Fischer, Michael J. *See* **Pippenger, Nicholas,** (80f:68052)
Fuhrmann, Paul A. Simulation of linear systems and factorization of matrix polynomials. (80b:93002)
Grossman, Jerrold On methods of generating random permutations. (80a:68002)
Iglehart, Donald L. Simulating stable stochastic systems. VII. Selecting the best system. (80g:68090)
(*with* Shedler, Gerald S.) Regenerative simulation of response times in networks of queues with multiple job types. (80d:68045)
(*with* Lewis, Peter A. W.) Regenerative simulation with internal controls. (80f:65011)
Ivković, Z. *See* **Banjević, D.,** (80k:60005)
Jea, Yu-Huei (*with* Szygenda, Stephen A.) Mappings and algorithms for gate modeling in a digital simulation environment. (80f:94038)
Kindler, Evžen Dynamic systems and theory of simulation. (80k:93006)
Lewis, Peter A. W. *See* **Iglehart, Donald L.,** (80f:65011)
Maritsas, D. G. *See* **Arvillias, A. C.,** (80i:65006)
Niederreiter, Harald Quasi-Monte Carlo methods and pseudo-random numbers. (80d:65016)
Ozguner, F. (*with* Donath, W. E.; Cha, C. W.) On fault simulation techniques. (80k:94036)
Pawlikowski, Krzysztof Message waiting time in a packet switching system. (80m:94090)
Pippenger, Nicholas (*with* Fischer, Michael J.) Relations among complexity measures. (80f:68052)
Polydoros, Andreas D. (*with* Protonotarios, Emmanuel N.) Digital interpolation of stochastic signals. (80j:94005)

Protonotarios, Emmanuel N. *See* **Polydoros, Andreas D., (80j:94005)**
Rault, J.-C. *See* **Dubanel, P., (80g:94072)**
Shedler, Gerald S. *See* **Iglehart, Donald L., (80d:68045)**
Szygenda, Stephen A. *See* **Jea, Yu-Huei, (80f:94038)**

68J10 Modeling

Andreev, L. V. Some loop networks of data transmission. (Russian) **80j:68084**
Danilov, V. V. (*with* Žirabok, A. N.) Hardware monitoring of asynchronous automata by partitioning with a substitution property. **80m:68087**
Gelenbe, Erol Probabilistic models of computer systems. II. Diffusion approximations, waiting times and batch arrivals. **80k:68090**
Kamoun, Farouk (*with* Kleinrock, Leonard) Stochastic performance evaluation of hierarchical routing for large networks. **80k:68091**
Kime, Charles R. An abstract model for digital system fault diagnosis. **80i:68090**
See also **McPherson, John A., 80h:68082**
Kleinrock, Leonard *See* **Kamoun, Farouk, 80k:68091**
Leroudier, Jacques (*with* Parent, Michel) Discrete event simulation modelling of computer systems for performance evaluation. **80e:68244**
Maciejowski, J. M. Model discrimination using an algorithmic information criterion. **80m:68088**
McPherson, John A. (*with* Kime, Charles R.) A two-level diagnostic model for digital systems. **80h:68082**
Parent, Michel *See* **Leroudier, Jacques, 80e:68244**
Trivedi, Kishor S. (*with* Wagner, Robert A.) A decision model for closed queueing networks. **80e:68245**
Venkatesan, M. An alternate approach to transitive coupling in ISM. **80b:68120**
Wagner, Robert A. *See* **Trivedi, Kishor S., 80e:68245**
Žirabok, A. N. *See* **Danilov, V. V., 80m:68087**
Žuravlev, Ju. I. Principles for the construction of proofs for algorithms for the solution of poorly formalized problems. (Russian) **80g:68126**

Secondary classifications:

Anderson, R. R. (*with* Foschini, G. J.; Gopinath, B.) A queuing model for a hybrid data multiplexer. **80k:94002**
Arató, Mátyás Statistical sequential methods for utilization in performance analysis. **80e:68005**
Bender, Edward A. ★An introduction to mathematical modeling. **(80c:00001a)**
Brizzi, Mauro (*with* Grillo, Davide) Implementation of algorithms for performance analysis of a class of multiprogrammed computers. **80e:68083**
Ellis, Clarence A. Probabilistic models of computer deadlock. **80e:68054**
Foo, Norman Y. Closure properties and homomorphisms of time-varying systems. **80b:93016**
Foschini, G. J. *See* **Anderson, R. R.; et al., (80k:94002)**
Gopinath, B. *See* **Anderson, R. R.; et al., (80k:94002)**
Grillo, Davide *See* **Brizzi, Mauro, (80e:68083)**
Hoffmann, Werner Warteschlangenmodelle für die Parallelverarbeitung. (English summary) **(80j:68018)**
Iazeolla, Giuseppe G. (*with* Martinelli, Enrico; Pranevičius, Henrikas) A method for the analytical representation of discrete event simulation models. (Russian and Latvian summaries) **(80f:93007)**
Ivanov, N. N. Behavior of interacting automata simulating a system "plant-controller". **(80k:68032)**
Iványi, Antal (*with* Kátai, Imre) On the performance of computers with interleaved memory. **(80j:68019)**
Kanal, Laveen N. (*with* Sastry, A. R. K.) Models for channels with memory and their applications to error control. **(80j:94020)**
Kátai, Imre *See* **Iványi, Antal, (80j:68019)**
(Mar'janovič, T. P.) *See* **Questions of modeling complex systems, (80j:90055)**
Martinelli, Enrico *See* **Iazeolla, Giuseppe G.; et al., (80f:93007)**
Nagy, Jozef (*with* Nováková, Eva) Local determinacy of symmetric pseudoprocesses. (Czech and Russian summaries) **(80k:93008)**
Nováková, Eva *See* **Nagy, Jozef, (80k:93008)**
Pearl, Judea On the connection between the complexity and credibility of inferred models. **(80b:03034)**
Podlovčenko, R. I. Models of sequential programs used to study functional equivalence of programs. **(80j:68012)**
(Ponomarenko, L. L.) *See* **Questions of modeling complex systems, (80j:90055)**
Pranevičius, Henrikas *See* **Iazeolla, Giuseppe G.; et al., (80f:93007)**
Sastry, A. R. K. *See* **Kanal, Laveen N., (80j:94020)**
Spaniol, O. Modelling of local computer networks. **(80k:68003)**
Venuri, V. ★Modeling of complex systems. **(80c:00001b)**
Complex systems *See* **Questions of modeling complex systems, (80j:90055)**
Modeling complex systems *See* **Questions of modeling complex systems, (80j:90055)**
Questions of modeling complex systems ★Вопросы моделирования сложных систем. (Russian) [Questions of modeling complex systems] **(80j:90055)**

68J99 None of the above, but in this section

Secondary classifications:

Hengartner, Walter (*with* Theodorescu, Radu) ★Einführung in die Monte-Carlo-Methode. **(80c:65016)**
Pavlov, A. I. (*with* Pohodzeĭ, B. B.) Pseudorandom numbers generated by linear recurrent relations over a finite field. (Russian) **(80j:65006)**
Pohodzeĭ, B. B. *See* **Pavlov, A. I., (80j:65006)**
Theodorescu, Radu *See* **Hengartner, Walter, (80c:65016)**
Zieliński, Ryszard ★Generatory liczb losowych. (Polish) [Random number generators] **(80i:65009)**

68K05 Miscellaneous applications of computers

Faux, Ivor D. (*with* Pratt, Michael J.) ★Computational geometry for design and manufacture. **80d:68134**
Gordesch, J. Programming abstract structures in statistics and probability. **80j:68085**
Pratt, Michael J. *See* **Faux, Ivor D., 80d:68134**

Secondary classifications:

Chasen, Sylvan H. ★Geometric principles and procedures for computer graphic applications. **(80j:68001)**
Knuth, Donald E. Mathematical typography. **(80c:00003)**

70–XX MECHANICS OF PARTICLES AND SYSTEMS (For relativistic mechanics, see 83A05 and 83C10; for statistical mechanics, see 82–XX.)

70–01 Elementary exposition, textbooks

(Ficken, F. A.) *See* **Fraeijs de Veubeke, Baudouin, 80e:70001**
Fraeijs de Veubeke, Baudouin ★A course in elasticity. **80e:70001**
Gorr, G. V. (*with* Kudrjšova, L. V.; Stepanova, L. A.) ★Классические задачи динамики твердого тела. Развитие и современное состояние. (Russian) [Classical problems in the theory of solid bodies. Their development and current state] **80m:70001**
Hamel, Georg ★Theoretische Mechanik. **80a:70001**
Kirchgraber, Urs (*with* Stiefel, Eduard) ★Methoden der analytischen Störungsrechnung und ihre Anwendungen. **80k:70001**
Kotkin, G. L. (*with* Serbo, V. G.) ★Сборник задач по классической механике. (Russian) [Collection of problems in classical mechanics] **80f:70001**
Kudrjšova, L. V. *See* **Gorr, G. V.; et al., 80m:70001**
Mook, Dean T. *See* **Nayfeh, Ali Hasan, 80m:70002**
Nayfeh, Ali Hasan (*with* Mook, Dean T.) ★Nonlinear oscillations. **80m:70002**
Osiński, Zbigniew ★Teoria drgań. (Polish) [Theory of vibrations] **80d:70001**
Park, David ★Classical dynamics and its quantum analogues. **80m:70003**
Rjabov, Ju. A. ★Движения небесных тел. (Russian) [Motion of celestial bodies] **80e:70002**
Rosenberg, Reinhardt M. ★Analytical dynamics of discrete systems. **80i:70001**
Serbo, V. G. *See* **Kotkin, G. L., 80f:70001**
Stepanova, L. A. *See* **Gorr, G. V.; et al., 80m:70001**
Stiefel, Eduard *See* **Kirchgraber, Urs, 80k:70001**

70–02 Advanced exposition (research surveys, monographs, etc.)

Arnol'd, V. I. ★Математические методы классической механики. (Russian) [Mathematical methods of classical mechanics] **80h:70001**
(Harrell, Evans M.) *See* **Thirring, Walter, 80d:70003**
Kil'čevs'kiĭ, M. O. (*with* Kil'činskaja, G. A.; Tkačenko, N. E.) ★Аналитическая механика континуальных систем. (Russian) [Analytical mechanics of continuous systems] **80f:70002**
Kil'činskaja, G. A. *See* **Kil'čevs'kiĭ, M. O.; et al., 80f:70002**
Kompaneec, A. S. ★A course of theoretical physics. Vol. 1. **80h:70002a**
★A course of theoretical physics. Vol. 2. **80h:70002b**
Santilli, Ruggero Maria ★Foundations of theoretical mechanics. I. **80d:70002**
(Talmy, V.) *See* **Kompaneec, A. S., 80h:70002a** *and* **Kompaneec, A. S., 80h:70002b**
Thirring, Walter ★A course in mathematical physics. Vol. I. Classical dynamical systems. **80d:70003**
Tkačenko, N. E. *See* **Kil'čevs'kiĭ, M. O.; et al., 80f:70002**

Secondary classifications:

Mook, Dean T. *See* **Nayfeh, Ali Hasan, (80m:70002)**
Nayfeh, Ali Hasan (*with* Mook, Dean T.) ★Nonlinear oscillations. **(80m:70002)**
Wang, Chao Chen ★Mathematical principles of mechanics and electromagnetism. Part A: Analytical and continuum mechanics. **(80m:73001a)**
★Mathematical principles of mechanics and electromagnetism. Part B: Electromagnetism and gravitation. **(80m:73001b)**

70–03 Historical (must also be assigned at least one classification number from Section 01)

Hristianovič, S. A. *See* **Išlinskiĭ, A. Ju., 80c:70001**
Išlinskiĭ, A. Ju. (*with* Hristianovič, S. A.) Mechanics and the progress of technology. (Russian. English summary) **80c:70001**
Kil'čevs'kiĭ, M. O. (*with* Procenko, O. P.) The current state and prospects of the development of general mechanics in the Ukrainian SSR. (Russian) **80h:70003**
Procenko, O. P. *See* **Kil'čevs'kiĭ, M. O., 80h:70003**

Secondary classifications:

Apollonius ★Απολλωνιου Κωνικα. Τομοσ Α'. (Greek) [Apollonios: Conics. Vol. 1] **(80g:01036a)**
★Απολλωνιου Κωνικα. Τομοσ Β'. (Greek) [Apollonios: Conics. Vol. 2] **(80g:01036b)**
★Απολλωνιου Κωνικα. Τομοσ Γ'. (Greek) [Apollonios: Conics. Vol. 3] **(80g:01036c)**
★Απολλωνιου Κωνικα. Τομοσ Δ'. (Greek) [Apollonios: Conics. Vol. 4] **(80g:01036d)**
(Archimedes) *See* **Clagett, Marshall, (80g:01005); Clagett, Marshall, (80g:01006)** *and* **Žitomirskiĭ, S. V., (80k:01005)**
Balnov, D. D. *See* **Stojanov, N. V., (80b:01026)**

(al-Bīrūnī, Abū'l-Rayḥān Muḥammad ibn Aḥmad) *See* Rozenfel'd, B. A.; et al., (80k:01013)
Bogdanov, Ju. S. *See* Erugin, N. P.; et al., (80c:01013)
Bogoljubov, O. M. Practical mechanics of the sixteenth century. (Russian) (80k:01018)
See also Mechanics and physics in the second half of the 18th century, (80d:01003)
Bottema, O. (*with* Grootendorst, A. W.) A thesis of 1834. (80k:01029)
Clagett, Marshall ★Archimedes in the Middle Ages. Vol. Two. (80g:01005)
★Archimedes in the Middle Ages. Vol. Three. (80g:01006)
Erugin, N. P. (*with* Bogdanov, Ju. S.; Vuvunikjan, Ju. M.; Ivanov, E. A.; Krylov, V. I.; Kudrjavcev, L. D.; Radyno, Ja. V.; Uspenskiĭ, S. V.) Sergeĭ L'vovič Sobolev (on the occasion of his seventieth birthday). (Russian) (80c:01013)
Forbes, Eric Gray The astronomical work of Carl Friedrich Gauss (1777–1855). (French summary) (80k:01032)
Freiesleben, H. C. Newton's quadrant for navigation. (80b:01011)
(Gauss, Carl Friedrich) *See* Forbes, Eric Gray, (80k:01032)
Gorr, G. V. (*with* Kudrjšova, L. V.; Stepanova, L. A.) ★Классические задачи динамики твердого тела. Развитие и современное состояние. (Russian) [Classical problems in the theory of solid bodies. Their development and current state] (80m:70001)
Grigor'jan, A. T. ★Механика в России. (Russian) [Mechanics in Russia] (80k:01018)
Grootendorst, A. W. *See* Bottema, O., (80k:01029)
(Harriot, Thomas) *See* Lohne, J. A., (80k:01020)
Hoyer, Ulrich Kepler's celestial mechanics. (80j:01010)
Ivanov, E. A. *See* Erugin, N. P.; et al., (80c:01013)
(Kepler, Johannes) *See* Hoyer, Ulrich, (80j:01010)
Krylov, V. I. *See* Erugin, N. P.; et al., (80c:01013)
Kudrjavcev, L. D. *See* Erugin, N. P.; et al., (80c:01013)
Kudrjšova, L. V. *See* Gorr, G. V.; et al., (80m:70001)
Lohne, J. A. Essays on Thomas Harriot. (80k:01020)
(Mitropol'skiĭ, Ju. O.) *See* Stojanov, N. V.; et al., (80b:01026)
(Newton, Isaac) *See* Treder, Hans-Jürgen, (80h:01007) *and* Freiesleben, H. C., (80b:01011)
Pingree, David Islamic astronomy in Sanskrit. (Arabic summary) (80g:01002)
Radyno, Ja. V. *See* Erugin, N. P.; et al., (80c:01013)
Ramazanova, S. A. Mathematical devices used by Arabic astronomers for determining the length of the shadow of a gnomon. (Russian) (80k:01012)
Rozenfel'd, B. A. (*with* Uceha, L. G.) al-Bīrūnī's astronomical treatise on shadows. (Russian) (80k:01013)
(Rueb, Adolf Stephanus) *See* Bottema, O.; et al., (80k:01029)
(Sobolev, S. L.) *See* Erugin, N. P.; et al., (80c:01013)
(Stamatis, Evangelos S.) *See* Apollonius, (80g:01036a); Apollonius, (80g:01036b); Apollonius, (80g:01036c) *and* Apollonius, (80g:01036d)
Stepanova, L. A. *See* Gorr, G. V.; et al., (80m:70001)
Stojanov, N. V. (*with* Bašnov, D. D.) Academician Jurīĭ Alekseevič Mitropol'skiĭ (on the occasion of his 60th birthday). (Bulgarian) (80b:01026)
Treder, Hans-Jürgen ★Isaac Newton und die Begründung der mathematischen Prinzipien der Naturphilosophie. (80h:01007)
Uceha, L. G. *See* Rozenfel'd, B. A., (80k:01013)
Uspenskiĭ, S. V. *See* Erugin, N. P.; et al., (80c:01013)
Vuvunikjan, Ju. M. *See* Erugin, N. P.; et al., (80c:01013)
(William of Moerbeke) *See* Clagett, Marshall, (80g:01005) *and* Clagett, Marshall, (80g:01006)
Žitomirskiĭ, S. V. The "celestial globe" of Archimedes. (Russian) (80k:01005)
Anniversary:
Death of Isaac Newton *See* Treder, Hans-Jürgen, (80h:01007)
Bibliography:
Newton, Isaac *See* Treder, Hans-Jürgen, (80h:01007)
Biography:
Mitropol'skiĭ, Ju. O. *See* Stojanov, N. V.; et al., (80b:01026)
Newton, Isaac *See* Treder, Hans-Jürgen, (80h:01007)
Sobolev, S. L. *See* Erugin, N. P.; et al., (80c:01013)
Birthday:
Mitropol'skiĭ, Ju. O. *See* Stojanov, N. V.; et al., (80b:01026)
Sobolev, S. L. *See* Erugin, N. P.; et al., (80c:01013)
Conics *See* Apollonius, (80g:01036a); Apollonius, (80g:01036b); Apollonius, (80g:01036c) *and* Apollonius, (80g:01036d)
Mechanics and physics in the second half of the 18th century ★Механика и физика второй половины XVIII в. (Russian) [Mechanics and physics in the second half of the 18th century] (80d:01003)
Physics *See* Mechanics and physics in the second half of the 18th century, (80d:01003)

70–04 Explicit machine computation and programs (not the theory of computation or programming)

70–05 Experimental papers

70–06 Proceedings, conferences, etc.

(Bullard, Edward) *See* Topics in nonlinear dynamics, 80b:70002
(Casati, Giulio) *See* Stochastic behavior in classical and quantum Hamiltonian systems, 80h:70004
(Ford, Joseph) *See* Stochastic behavior in classical and quantum Hamiltonian systems, 80h:70004
(Jorna, Siebe) *See* Topics in nonlinear dynamics, 80b:70002
(Magnus, Kurt) *See* Dynamics of multibody systems, 80b:70001
(Munk, W. H.) *See* Topics in nonlinear dynamics, 80b:70002
(Szebehely, Victor G.) *See* Instabilities in dynamical systems, 80k:70002
Celestial mechanics *See* Instabilities in dynamical systems, 80k:70002
Como *See* Stochastic behavior in classical and quantum Hamiltonian systems, 80h:70004
Conference:
Volta Memorial *See* Stochastic behavior in classical and quantum Hamiltonian systems, 80h:70004
Cortina d'Ampezzo *See* Instabilities in dynamical systems, 80k:70002
Dynamical systems *See* Instabilities in dynamical systems, 80k:70002
Dynamics of multibody systems ★Dynamics of multibody systems. 80b:70001
Hamiltonian systems *See* Stochastic behavior in classical and quantum Hamiltonian systems, 80h:70004
Instabilities in dynamical systems ★Instabilities in dynamical systems. 80k:70002
IUTAM Symposium:
Dynamics of Multibody Systems *See* Dynamics of multibody systems, 80b:70001
La Jolla, Calif. *See* Topics in nonlinear dynamics, 80b:70002
Multibody systems *See* Dynamics of multibody systems, 80b:70001
Munich *See* Dynamics of multibody systems, 80b:70001
NATO Advanced Study Institute:
Instabilities in Dynamical Systems *See* Instabilities in dynamical systems, 80k:70002
Nonlinear dynamics *See* Topics in nonlinear dynamics, 80b:70002
Stochastic behavior in classical and quantum Hamiltonian systems ★Stochastic behavior in classical and quantum Hamiltonian systems. 80h:70004
Topics in nonlinear dynamics ★Topics in nonlinear dynamics. 80b:70002
Workshop:
Nonlinear Dynamics *See* Topics in nonlinear dynamics, 80b:70002

70A05 Axiomatics, foundations

Doubochine, G. N. Sur les solutions lagrangiennes et euleriennes du problème généralisé des trois corps en axes absolus. (Russian summary) 80k:70005
O'Sullivan, Colm T. Newton's laws of motion: some interpretations of the formalism. 80k:70003
Szekeres, Peter The mathematical foundations of dimensional analysis and the question of fundamental units. 80k:70004

Secondary classifications:

Aczél, J. E. Picardus ab omni naevo liberatus (on the axiomatics of vector addition). (80j:51017)

70Bxx Kinematics [See also 53A17.]

70B05 Kinematics of a particle

Tölke, Jürgen Sphärische Zwangläufe mit verschwindenden Integralvektoren. 80g:70001

Secondary classifications:

Ihrig, Edwin Counting and enumeration of certain graphs occurring in physics. (80l:05050)
Wunderlich, Walter Kurzer Beweis eines Satzes aus der Kinematik ähnlich-veränderlicher Felder. (80c:51017)

70B10 Kinematics of a rigid body

Bulatov, P. K. Conditions for the uniform relative motion of a material point along a rotating curve. (Russian) 80a:70002
Hunt, K. H. ★Kinematic geometry of mechanisms. 80g:70002

Secondary classifications:

Gurevič, V. L. Kinematics of bounded curvature. (Russian) (80k:53074)
Hayashi, Kiyoshi Subordinated homology classes of a path space. (80k:58021)
Nomizu, Katsumi Kinematics and differential geometry of submanifolds. (80a:53007)
Oshima, Nobunori Application of the infinitesimal operators and translation of rotation. I. The lineage of dynamic equations. (80c:70007)
Švec, Alois Contributions to the theory of infinitesimal II-isometries. (80k:53004)
Tölke, Jürgen Eine äquiaffine Charakterisierung der Cardan-Bewegung mittels der höheren Wendepole. (English summary) (80c:53004)

70B15 Mechanisms and linkages

Artobolevskiĭ, I. I. (*with* Frolov, K. V.) Some aspects of modern mechanics of machines. (Russian. English summary) 80b:70003
Denisko, S. V. Reproduction of developable surfaces by means of mechanisms. (Ukrainian. Russian summary) 80k:70005
Frolov, K. V. *See* Artobolevskiĭ, I. I., 80b:70003
Qi, Ming Gao Application of continued fractions to matching the number of teeth in gears. (Chinese) 80a:70003
Tudosie, Constantin On a differential equation from the dynamics of machines. 80h:70006
Wojcik, Charles K. Application of quaternion algebra to the theory of skew friction gears. (Arabic summary) 80m:70004

Secondary classifications:

Halpern, Benjamin An inequality for double tangents. (80k:53002)
Hunt, K. H. ★Kinematic geometry of mechanisms. (80g:70002)
Karger, Adolf Darboux motions in E_n. (80h:53009)
Scott, Paul R. Two inequalities for convex sets in the plane. (80d:52005)
Whiteley, Walter Projective geometry and rigid buildings. (80c:51018)

70B99 None of the above, but in this section

Tempelman, W. The co-ordinatization of the kinematical vectors. (Italian and Russian summaries) 80d:70004

Secondary classifications:

Pečaškov, I. A. Distributions on manifolds of parabolic cylinders and ruled geometry. (Russian) (80h:53008)
Somer, Josef Lineare invariante Gebilde in äquiformen Bewegungen der Räume endlicher Dimension. (Czech summary) (80d:53009)

70Cxx Statics

70C05 Forces, fields

Ferrero, Giorgio On the Newtonian attraction of two intersecting, ellipsoidal segments of rotation. (Italian) 80d:70005

Secondary classifications:

Kallenberg, G. W. M. A stability problem for polytopes. (80f:52006)
Raftery, Adrian Un problème de ficelle. (English summary) (80h:60019)

70C10 Potential energy

70C99 None of the above, but in this section

Dimentberg, F. M. ★Теория винтов и ее приложения. (Russian) [The theory of screws and its applications] 80b:70004

70Dxx Dynamics of a particle [See also 70Hxx.]

70D05 Newtonian dynamics

Buritein, E. I. On a separable potential in spheroconical coordinates which satisfies the Laplace equation. 80b:70005
Grudcyn, L. N. Inverse problems on the central motion of a point of variable mass. (Russian) 80f:70003
Kregar, Mitja Motions in the central force field. (Slovenian. English summary) 80m:70005
Mlčoch, Karel Nongravitational foci and apsides of pencil of paths with two common points. 80i:70002
Rogulja, D. *See* Zorskiĭ, G.; et al., 80j:70001
Rymaž, Č. *See* Zorskiĭ, G.; et al., 80j:70001
Tanzi Cattabianchi, Luigi On some generalizations of a formula of Levi-Cività on impulsive deformations. (Italian. English summary) 80e:70003
Weinstock, Robert Oscillations of a particle attached to a heavy spring: an application of the Stieltjes integral. 80b:70006
Zorskiĭ, G. (*with* Rogulja, D.; Rymaž, Č.) Nonlocal continuum models of discrete systems. (Russian. English summary) 80j:70001

Secondary classifications:

Akulenko, L. D. Forced periodic motions in non-Hamiltonian systems with one degree of freedom. (80b:70032)
Bender, Carl M. (*with* Ling, Kuok Mee) Tight upper and lower bounds on perturbation coefficients for anharmonic oscillators. (80e:81010)
Ling, Kuok Mee *See* Bender, Carl M., (80e:81010)

70D10 Lagrangian dynamics

Constantinescu, Ilie N. (*with* Noagi, T.) Inverse problems of the theory of vibrators. (Russian) 80g:70003
Noagi, T. *See* Constantinescu, Ilie N., 80g:70003
Takahashi, Yasushi Generating current and dynamical rearrangement of symmetry. 80j:70002

Secondary classifications:

Landovitz, L. F. (*with* Levine, A. M.; Schreiber, W. M.) Time-dependent harmonic oscillators. (80f:81021)
Levine, A. M. *See* Landovitz, L. F.; et al., (80f:81021)
Schreiber, W. M. *See* Landovitz, L. F.; et al., (80f:81021)

70D99 None of the above, but in this section

Dragoș, Lazăr Regularization theory and the problem of two centers of gravity. (Romanian. English summary) 80a:70004
Kolesnikov, N. N. Natural systems with a solvable symmetry group. (Russian. English summary) 80b:70007

Secondary classifications:

Abgarjan, K. A. (*with* Avanjan, V. T.) On the theory of stability on a given time interval. (80a:34055)
Avanjan, V. T. *See* Abgarjan, K. A., (80a:34055)
Đukić, Đorđe S. On the brachistochronic motion of a nonconservative dynamic system. (80j:49003)
Dioldasbekov, U. A. (*with* Kazyhanov, H. R.; Kangužin, B. E.) Application of methods for the theory of optimal control for the analysis and synthesis of mechanisms. (Russian. Bulgarian and English summaries) (80a:93108)
Kangužin, B. E. *See* Dioldasbekov, U. A.; et al., (80a:93108)
Kazyhanov, H. R. *See* Dioldasbekov, U. A.; et al., (80a:93108)
Martinjuk, A. A. A theorem on the averaging principle in nonlinear mechanics. (Russian) (80a:34066)
Müller, Peter C. Oscillatory damped linear systems. (80h:49026)

70Exx Dynamics of rigid bodies

70E05 Motion of the gyroscope

Arhangel'skaja, M. Ju. Reduction of Euler-Poisson equations to a skew-symmetric form. (Russian. English summary) 80d:70006
Baumgarte, Joachim (*with* von Grünhagen, Wolfgang) A stabilization procedure for the differential equations of the symmetric gyroscope including perturbing torques. 80f:70004
Elfimov, V. S. Geometric investigation of the motion of a Lagrange gyroscope. (Russian) 80d:70007
Ežova, L. A. Asymptotic expansion of the solution of a singularly perturbed system. (Russian) 80i:70003
Ganiev, R. F. (*with* Vorob'ev, V. M.; Ljutyĭ, A. I.) ★Резонансные колебания гироскопических систем. (Russian) [Resonant oscillations of gyroscopic systems] 80d:70008
von Grünhagen, Wolfgang *See* Baumgarte, Joachim, 80f:70004
Harlamov, P. V. Separating motions of a Lagrange gyroscope. (Russian) 80d:70009
See also Koval', V. I., 80d:70010
Harlamov, S. A. *See* Klimov, D. M., 80c:70002
Klimov, D. M. (*with* Harlamov, S. A.) ★Динамика гироскопа в карданове подвесе. (Russian) [Dynamics of a gyroscope in Cardan's suspension] 80c:70002
Koval', V. I. (*with* Harlamov, P. V.) Hodographs of angular velocity of Mme. Kovalevskaja's gyroscope in the Delone case. (Russian) 80d:70010
Lesina, M. E. Oscillations of a flywheel axis in a carrier body. (Russian) 80d:70011
Stabilization of a quiescent unbalanced Lagrange gyroscope. (Russian) 80d:70012
Ljutyĭ, A. I. *See* Ganiev, R. F.; et al., 80d:70008
Rudenko, V. M. Investigation of the dynamics of an astatic gyroscope with elastic gimbal suspension. 80e:70004
Šmeleva, I. V. The motion of Lagrange's gyroscope in a gravitational field. (Russian) 80c:70003
Sobolev, V. A. (*with* Strygin, V. V.) Permissibility of changing over to precessional equations of gyroscopic systems. 80e:70005
Strygin, V. V. *See* Sobolev, V. A., 80e:70005
Vorob'ev, V. M. *See* Ganiev, R. F.; et al., 80d:70008
Žbanov, Ju. K. (*with* Žuravlev, V. F.) On certain properties of the finite rotations of a rigid body in the presence of a nonholonomic constraint. 80b:70007
Žuravlev, V. F. *See* Žbanov, Ju. K., 80b:70007

Secondary classifications:

Artjuhin, Ju. P. (*with* Kargu, L. I.; Simaev, V. L.) ★Системы управления космических аппаратов, стабилизированных вращением. (Russian) [Control systems for satellites stabilized by rotation] (80g:93044)
Kargu, L. I. *See* Artjuhin, Ju. P.; et al., (80g:93044)
Simaev, V. L. *See* Artjuhin, Ju. P.; et al., (80g:93044)

70E10 Motion of projectiles and rockets

Murphy, R. V. Maximum range problems in a resisting medium. 80c:70004

70E15 Motion of a general rigid body

Arĭanyh, I. S. Quadratic representations of the solutions of the Volterra problem. (Russian. Uzbek summary) 80e:70006
Belikov, S. A. The stability of uniform rotations of a rigid body around the main axis in a Newtonian force field. (Russian. English summary) 80a:70005
Burley, D. M. *See* Pickering, W. M., 80a:70009
Čudnenko, O. M. Stability of uniform rotations of a solid around axes that do not coincide with the principal ones. (Russian) 80d:70013
De Corte, L. *See* Mertens, R., 80a:70008
El' Saban, F. M. Hill and Hadamard characteristics in the problem of the motion of a heavy rigid body in the Kovalevskaja case. (Russian. English summary) 80f:70005
Ferrero, Giorgio On a problem more general than that of the circle. (Italian) 80a:70006
Grioli, Giuseppe The precession motions of a rigid body. (Italian) 80k:70006
Harlamov, M. P. Phase topology of an integrable case of motion of a rigid body. (Russian) 80j:70003
Jerkovsky, W. The transformation operator approach to multi-subsystem dynamics. III. Applications to systems of rigid bodies. 80a:70007
Langlois, M. Sur la mécanique analytique du corps solide. (English summary) 80i:70004
Mertens, R. (*with* De Corte, L.) An exact mathematical solution of the problem of tops rising by friction. 80a:70008
Messori, Bruno A particular nonholonomic dynamical system similar to that of the circle. (Italian) 80i:70005
Oshima, Nobunori Application of the infinitesimal operators and translation of rotation. I. The lineage of dynamic equations. 80e:70007
Pickering, W. M. (*with* Burley, D. M.) The oscillations of a simple castor. 80a:70009
Pigozzi, Diego Kinematic geometric properties of precession motions. (Italian. English summary) 80e:70008
Popescu, P. Dual Rodrigues-Hamilton (R-H) parameters for the spatial movement study of rigid material systems. (Romanian. French summary) 80a:70010
Sergeev, V. S. The stability of a constant gyrostat rotation around the main axis of inertia. (Russian. Bulgarian and English summaries) 80f:70006
Wang, Zhao Lin An instability theorem for unisolated systems with gyroscopic terms. (Chinese) 80d:70014

Secondary classifications:

Babickiĭ, V. I. ★Теория виброударных систем. (Russian) [Theory of vibroshock systems] (80d:73117)

Ermolin, V. S. *See* **Zubov, V. I.; et al., (80h:93012)**

Rabanovič, E. M. Some properties of conservative systems. (Russian. English summary) **(80f:49002)**

Sergeev, S. I. *See* **Zubov, V. I.; et al., (80h:93012)**

Smirnov, E. Ja. The problem of controlling the three-axis orientation of rigid bodies. (Russian) **(80g:93064)**

See also **Zubov, V. I.; et al., (80h:93012)**

Wauer, J. Eigenwertaufgaben hybrider Schwingungssysteme mit elastisch angekoppelten Starrkörpern. **(80k:73031)**

Zubov, V. I. (*with* Ermolin, V. S.; Sergeev, S. I.; Smirnov, E. Ja.) ★Управление вращательным движением твердого тела. (Russian) [Control of the rotary motion of a solid body] **(80h:93012)**

70E20 Perturbation methods for Euler's equations

Borderies, N. Mutual gravitational potential of *N* solid bodies. **80c:70005**

Kraige, L. G. (*with* Ulman, D. A.) Rectification of the Encke perturbation method as applied to rigid body rotational motion. **80m:70006**

Ulman, D. A. *See* **Kraige, L. G., 80m:70006**

Secondary classifications:

Anbin, Gilles Linear oscillations of 4th order of Jacobi ellipsoids. **(80j:85001)**

70E25 Poinsot method

70E99 None of the above, but in this section

Andreev, A. S. *See* **Šul'gin, A. M., 80e:70009**

Donaldson, John D. *See* **Jezewski, Donald J., 80b:70008**

Hubbard, Mont Whirl dynamics of pendulous flywheels using bond graphs. **80g:70004**

Jezewski, Donald J. (*with* Donaldson, John D.) Coupled motion of rigid bodies about their center of mass. **80b:70008**

Lobas, L. G. On a nonholonomic system serving as a model of a four-wheeled vehicle. (German and Russian summaries) **80b:70009**

Lukovs'kiĭ, I. O. A variational method in nonlinear problems of the theory of motion of a rigid body with a cavity that is partially filled with a fluid. (Russian) **80d:70015**

Müller, Peter C. *See* **Popp, K., 80d:70016**

Ngo Zui Kan The free rotation of a rigid body having a cavity filled with viscous liquids. (Russian) **80i:70006**

Osipov, V. Z. (*with* Sulikašvili, R. S.) The oscillation in an elliptic orbit of a rigid body containing a spherical cavity that is entirely filled with a viscous fluid. (Russian) **80a:70011**

Popp, K. (*with* Müller, Peter C.) On the stability of interactive multibody systems with an application to Maglev-vehicle-guideway control systems. **80d:70016**

Šul'gin, A. M. (*with* Andreev, A. S.) On the problem of the stabilization of the equilibrium point of a solid body with variable moments of inertia in its motion relative to the center of mass. (Russian) **80e:70009**

Sulikašvili, R. S. *See* **Osipov, V. Z., 80a:70011**

Truckenbrodt, A. Schwingungsverhalten hybrider Mehrkörpersysteme bei *Führungsbewegungen der elastischen Körper.* **80h:70008**

Secondary classifications:

Baĭmuhametov, A. A. *See* **Eržanov, Ž. S.; et al., (80d:86012)**

Eržanov, Ž. S. (*with* Kalybaev, A. A.; Baĭmuhametov, A. A.) Rotation of a dynamically symmetric body and sphere separated by a spherical layer of a viscous fluid. (Russian. Kazakh summary) **(80d:86012)**

Fedock, Joseph J. *See* **Schreyer, Howard L., (80e:73056)**

Gorr, G. V. (*with* Kudrjšova, L. V.; Stepanova, L. A.) ★Классические задачи динамики твердого тела. Развитие и современное состояние. (Russian) [Classical problems in the theory of solid bodies. Their development and current state] **(80m:70001)**

Ilʹjukin, A. A. ★Пространственные задачи нелинейной теории упругих стержней. (Russian) [Three-dimensional problems of the nonlinear theory of elastic rods] **(80d:73081)**

Kalybaev, A. A. *See* **Eržanov, Ž. S.; et al., (80d:86012)**

Kryljuk, Ja. S. Modules over Lie algebras that permit the first Cartan prolongation. (Russian) **(80h:17012)**

Kudrjšova, L. V. *See* **Gorr, G. V.; et al., (80m:70001)**

Schreyer, Howard L. (*with* Fedock, Joseph J.) Orthogonal base functions and consistent diagonal mass matrices for two-dimensional elements. **(80e:73056)**

Stepanova, L. A. *See* **Gorr, G. V.; et al., (80m:70001)**

Sudakov, S. N. Canonical equations of motion of a rigid body with a vortex filling. (Russian) **(80j:76021a)**

The form of a closed cavity in which there exist uniform vortex motions of an ideal incompressible fluid. (Russian) **(80j:76021b)**

Tudosie, Constantin On some vector operators. **(80h:26010)**

70Fxx Dynamics of a system of particles, including celestial mechanics

Secondary classifications:

Dubko, V. A. The first integral of a system of stochastic differential equations. (Russian) **(80b:60081)**

70F05 Two-body problem

Antonec, M. A. The scattering problem in classical mechanics. (Russian) **80b:70010**

Brumberg, V. A. Perturbation theory in rectangular coordinates. **80a:70012**

Melloni, Franca Gallerani The reduced two-body problem for variable mass. (Italian. English summary) **80k:70007**

Ng, Edward W. A general algorithm for the solution of Kepler's equation for elliptic orbits. **80m:70007**

Secondary classifications:

Baumgarte, Joachim Eine kanonische Transformation für die Kepler-Bewegung, welche ohne Dimensionserhöhung die Zeit in die exzentrische Anomalie überführt. (English summary) **(80f:70016)**

70F07 Three-body problem

Aksenov, E. P. Trajectories in the doubly-averaged, elliptical, restricted, three-body problem. **80k:70008**

Arĭanyh, I. S. Reduction by two of the order of certain dynamical systems by means of an energy integral. (Russian) **80i:70007**

Brjuno, A. D. Extrema of the Hamiltonian on families of arc-solutions of the restricted three-body problem for $\mu = 0$. (Russian. English summary) **80j:70004**

Chen, Xiang Yan (*with* Sun, Yi Sui; Luo, Ding Jun) Some problems concerning the regions of motion in the general three-body problem. (Chinese. English summary) **80b:70011**

Cheng, Bin Kang Motion near the triangular points in the elliptic restricted problem of three bodies. **80c:70006**

Delmas, Christian Sur une caractérisation des mouvements quasi isocèles du problème planétaire plan des 3 corps. (English summary) **80i:70009**

Doubochine, G. N. Sur le problème restreint circulaire des trois corps solides. (Russian summary) **80b:70012**

Golubev, V. G. On lower bounds for the distance between bodies in the unrestricted three-body problem. **80c:70007**

Hulkower, Neal D. The zero energy three body problem. **80a:70013**

Innanen, K. A. The Coriolis asymmetry in the classical restricted 3-body problem and the Jacobian integral. **80k:70009**

Katopodis, K. Continuation of periodic orbits: three-dimensional circular restricted to the general three-body problem. **80b:70013**

Kazantzis, P. G. Surface fitting of three-dimensional closed solutions of the restricted three-body problem. **80d:70017**

Kočiev, A. A. New intermediate orbits of a point of small mass in the restricted three-body problem. **80a:70014**

Kummer, Martin On the stability of Hill's solutions of the plane restricted three body problem. **80k:70010**

Luo, Ding Jun *See* **Chen, Xiang Yan; et al., 80b:70011**

Markellos, V. V. The three-dimensional general three-body problem: determination of periodic orbits. **80m:70008**

Matas, V. Curves of zero relative velocity in a generalized restricted problem of three bodies. (Russian summary) **80k:70011**

Mettler, E. Die Hecubabewegung im eingeschränkten Dreikörperproblem als Beispiel einer nichtlinearen Schwingung. (English and Russian summaries) **80h:70009**

Michalodimitrakis, M. A contribution to the three-dimensional Copenhagen problem. **80c:70008**

On the continuation of periodic orbits from the planar to the three-dimensional general three-body problem. **80k:70010**

Obermair, G. M. Instability of a three-body system in one dimension. (Italian summary) **80c:70009**

Ojika, Takeo (*with* Yokoo, Takeo) A numerical method for periodic solutions of the restricted three-body problem. (Japanese summary) **80g:70005**

(Oldham, Edward U.) *See* **Aksenov, E. P., 80k:70008**

Oliva, W. M. Restricted three-body problem: a theorem of Poincaré-Birkhoff on the existence of periodic orbits. (Portuguese) **80e:70010**

Pitiçu, Maria Elena Les chocs doubles imaginaires dans le problème restreint des trois corps. **80i:70011**

Les singularités imaginaires dans le problème restreint des trois corps. **80j:70005**

Schuerman, Donald W. The restricted three-body problem including radiation pressure. **80i:70008**

Singh, V. Periodic solutions of Schwarzschild's type in the relativistic restricted problem of three bodies. **80m:70009**

Sun, Yi Sui *See* **Chen, Xiang Yan; et al., 80b:70011**

Szebehely, Victor G. Stability of inner planetary systems. (German summary) **80f:70008**

Timofikova, E. I. Formal integrals for the restricted, plane, three-body problem. **80f:70009**

Valkov'jak, M. A. A qualitative study of the evolution of orbits in a bounded circular doubly averaged three-body problem. (Russian. English summary) **80k:70012**

Waldvogel, Jörg La variété de collision triple. (English summary) **80k:70014**

The variational equation of the three-body problem. **80m:70010**

Yokoo, Takeo *See* **Ojika, Takeo, 80g:70005**

Secondary classifications:

El Mabsout, B. Espace des phases dans le problème plan des trois corps. (English summary) **(80e:58020)**

Meire, R. (*with* Vanderbauwhede, André L.) A useful result for certain linear periodic ordinary differential equations. **(80e:65078)**

Teschner, W. Optimality of intermediate-thrust arcs in rotating potential force fields. **(80m:70030)**

Vanderbauwhede, André L. *See* **Meire, R., (80e:65078)**

70F10 *n*-body problem

Arenstorf, Richard F. Periodic solutions of circular-elliptic type in the planar *N*-body problem. **80d:70018**

Babadžanjanc, L. K. Existence of the continuations in the *N*-body problem. **80h:70010**

Beigey, Françoise Réduction du problème newtonien des quatre corps, du 18e au 14e ordre, à l'aide des intégrales des aires. (English summary) **80m:70011**

Calogero, F. (*with* Perelomov, A. M.) Properties of certain matrices related to the equilibrium configuration of the one-dimensional many-body problems with the pair potentials $V_1(x) = -\log|\sin x|$ and $V_2(x) = 1/\sin^2 x$. **80d:70019**

Henrard, Jacques (*with* Renard, Jacqueline) Note on the paper: " Sur de nouvelles séries pour le problème de masses critiques de Routh dans le problème restreint plan des trois corps" (Celestial Mech. 12 (1975), no. 3, 327–336) by J. Roels. **80a:70015**

Michalodimitrakis, M. The bifurcation of periodic orbits of the planar circular restricted N-body problem to the three-dimensional general N-body problem. **80a:70016**

Mjačin, V. F. Some variants of the regularization for a double encounter in the n-body problem. (Russian. English summary) **80a:70017**

Palmore, Julian I. Central configurations of the n-body problem in E^4. **80c:70010**

Perelomov, A. M. *See* **Calogero, F., 80d:70019**

Renard, Jacqueline *See* **Henrard, Jacques, 80a:70015**

(Roels, J.) *See* **Henrard, Jacques; et al., 80a:70015**

Shelton, Robert Orrin Noncollision singularities in the four-body problem. **80c:70011**

Simó, Carlos Relative equilibrium solutions in the four-body problem. **80d:70020**

Spyrou, N. Relativistic effects in many-body systems of finite size, internal structure, and internal motions. I. "Self-acceleration" of astrophysical systems. **80h:70011**

Stellmacher, Irène Dynamical coupling of periodic systems. II. A particular case of homographic solution. **80m:70012**

Urenko, John B. Improbability of collisions in Newtonian gravitational systems of specified angular momentum. **80b:70015**

Secondary classifications:

Ahmed, Shafique Relationship between equilibrium configurations of certain dynamical systems and zeros of Laguerre polynomials. (French summary) **(80i:33017)**

(*with* Bruschi, M.; Calogero, F.; Ol'šaneckiĭ, M. A.; Perelomov, A. M.) Properties of the zeros of the classical polynomials and of the Bessel functions. (Italian and Russian summaries) **(80g:33018)**

Borderies, N. Mutual gravitational potential of N solid bodies. **(80c:70005)**

Bruschi, M. *See* **Ahmed, Shafique; et al., (80g:33018)**

Calogero, F. *See* **Ahmed, Shafique; et al., (80g:33018)**

Chen, Xiang Yun The topology of manifold M_8 of the general three-body problem. **(80d:58024)**

Ol'šaneckiĭ, M. A. *See* **Ahmed, Shafique; et al., (80g:33018)**

Perelomov, A. M. *See* **Ahmed, Shafique; et al., (80g:33018)**

70F15 Celestial mechanics

de Almeida N. Junqueira, José Luiz The elliptic problem for the evolution of models of celestial motions. (Portuguese) **80e:70011**

Dubošinjanc, L. K. Continuability and representation of solutions in problems of celestial mechanics. (Russian. English summary) **80k:70013**

Bakry, Abdel A. *See* **Kamel, Osman M., 80c:70014**

Baumgarte, Joachim A further remark to: "Another regularization to the Kepler problem" (Celestial Mech. 15 (1977), no. 1, 131) by J. Stickforth. **80c:70012**

Die Invarianzgruppe des Oszillator-Kepler-Problems. (English and Russian summaries) **80h:70012**

Bekov, A. A. (*with* Nurgaliev, A.) On the generalized problem of two fixed centers with a variable gravitational constant. (Russian. English summary) **80e:70012**

Bolotin, S. V. Libration motions of natural dynamical systems. (Russian. English summary) **80d:70021**

Bond, Victor R. The classical solution of a definite integral occurring in the satellite theory in the extended phase space. (German summary) **80m:70013**

Denisk, S. A. *See* **Ferronskiĭ, V. I.; et al., 80f:70010**

Deuflhard, P. Kepler discretization in regular celestial mechanics. **80m:70014**

Ding, Hua *See* **Huang, Tian Yi, 80e:70015**

Dumais, Jean-François Geometry of the Kepler initial value problem explored with two circles. **80b:70016**

Duriez, L. Théorème de Poisson en variables héliocentriques. Conditions d'application de ce théorème relatif à l'invariabilité des grands axes des orbites planétaires à l'ordre deux des masses. (English summary) **80c:70013**

Evans, R. T. *See* **Szebehely, Victor G., 80m:70015**

Ferronskiĭ, S. V. *See* **Ferronskiĭ, V. I.; et al., 80f:70010**

Ferronskiĭ, V. I. (*with* Denisk, S. A.; Ferronskiĭ, S. V.) The solution of Jacobi's virial equation for nonconservative systems and analysis of its dependence on parameters. (Russian summary) **80f:70010**

Giacaglia, G. E. O. Resonance in celestial mechanics. (Portuguese) **80e:70013**

Grebenikov, E. A. (*with* Rjabov, Ju. A.) ★Резонансы и малые знаменатели в небесной механике. (Russian) [Resonances and small denominators in celestial mechanics] **80e:70014**

Griffith, J. S. An addendum to note on central dynamical configurations. **80h:70013**

Holševnikov, K. V. Certain properties of d'Alembert functions of celestial mechanics. **80b:70017**

Howland, Robert A., Jr. An improved transformation-elimination technique for the solution of perturbed Hamiltonian systems. **80i:70012**

Huang, Tian Yi (*with* Ding, Hua) Stability of numerical methods as applied to circular motion. (Chinese. English summary) **80e:70015**

Jacobs, Konrad Stochastics and mechanics. **80k:70014**

Kamel, Osman M. (*with* Bakry, Abdel A.) The elimination of short-periodic terms in a Uranus-Neptune general planetary theory by von Zeipel's method. **80c:70014**

First-order secular planetary theory up to fourth power in eccentricities and inclinations. **80i:70013**

Luk'janov, L. G. On the plane form and symmetry of asymptotic solutions in the restricted three-body problem. **80a:70018**

Martins, Roberto Vieira Some aspects of resonance problems of celestial mechanics. (Portuguese) **80e:70016**

Naniev, V. S. A qualitative analysis and classification of real motions in the problem of four fixed centers. **80f:70011**

Nurgaliev, A. *See* **Bekov, A. A., 80e:70012**

Palmore, Julian I. Relative equilibria and the virial theorem. **80i:70014**

Pit'ev, N. P. Coefficients of the gradient of the direction field in systems that permit separation of variables. (Russian. English summary) **80k:70015**

Rjabov, Ju. A. *See* **Grebenikov, E. A., 80e:70014**

Schmidt, Dieter S. The lunar theory of Hill and Brown. **80j:70006**

Stickforth, J. Additional remark to: "Another regularization of the Kepler problem" (Celestial Mech. 15 (1977), no. 1, 131). **80b:70018**

See also **Baumgarte, Joachim, 80c:70012**

Szebehely, Victor G. General considerations of stability in celestial mechanics. **80m:70016**

(*with* Evans, R. T.) On the capture of the Moon. **80m:70015**

Vasil'ev, N. N. Determining singular points of the function of distance between points of Keplerian orbits. (Russian. English summary) **80c:70015**

Wiesel, W. Orbital and solar resonance in the Jovian moon system. **80m:70017**

Secondary classifications:

Aubin, Gilles Linear oscillations of 4th order of Jacobi ellipsoids. **(80j:85001)**

Baranov, A. S. Periodic orbits of stars in axisymmetrical stellar systems. (Russian summary) **(80h:85001)**

Brjuno, A. D. Periodic orbits around the moon. (Russian. English summary) **(80k:85003)**

Cheng, Bin Kang Motion near the triangular points in the elliptic restricted problem of three bodies. **(80c:70006)**

Churchill, R. C. (*with* Pecelli, G.; Rod, D. L.) A survey of the Hénon-Heiles Hamiltonian with applications to related examples. **(80k:58046)**

Contopoulos, G. Integrable and stochastic behaviour in dynamical astronomy. **(80k:85002)**

Denisik, S. A. *See* **Ferronskiĭ, V. I.; et al., (80d:85002)**

Ferronskiĭ, S. V. *See* **Ferronskiĭ, V. I.; et al., (80d:85002)**

Ferronskiĭ, V. I. (*with* Denisik, S. A.; Ferronskiĭ, S. V.) The solution of Jacobi's virial equation for celestial bodies. **(80d:85002)**

Pecelli, G. *See* **Churchill, R. C.; et al., (80k:58046)**

Rod, D. L. *See* **Churchill, R. C.; et al., (80k:58046)**

70F20 Holonomic systems

Brendelev, V. N. Commutation relations in nonholonomic mechanics. (Russian. English summary) **80c:70016**

70F25 Nonholonomic systems

Emel'janova, I. S. (*with* Fufaev, N. A.) Equilibrium states of a nonholonomic system. **80m:70018**

Fufaev, N. A. *See* **Emel'janova, I. S., 80m:70018**

Hussain, Munawar Generalized Whittaker's equations for a nonholonomic system. (Polish and Russian summaries) **80j:70007**

Karapetjan, A. V. Extension of the converse of the Lagrange theorem for Čaplygin nonholonomic systems. (Russian. Bulgarian and English summaries) **80i:70015**

Nguen Dong An' *See* **Šul'gin, A. M., 80k:70016**

Samsonov, V. A. On the quasi-steady-state motions of mechanical systems. **80e:70017**

Šul'gin, A. M. (*with* Nguen Dong An') Equations for variations in the trajectory of nonholonomic mechanical systems. (Russian) **80k:70016**

Secondary classifications:

Nikitina, N. V. A special case of a mapping of coordinates of a nonholonomic dissipative system. (Russian) **(80b:70021)**

Rumjancev, V. V. (*with* Sumbatov, A. S.) On the problem of a generalization of the Hamilton-Jacobi method for nonholonomic systems. (German and Russian summaries) **(80e:70024)**

Sumbatov, A. S. *See* **Rumjancev, V. V., (80e:70024)**

Van Dooren, René Second form of the generalized Hamilton-Jacobi method for nonholonomic dynamical systems. (French summary) **(80b:70026)**

Žbanov, Ju. K. (*with* Žuravlev, V. F.) On certain properties of the finite rotations of a rigid body in the presence of a nonholonomic constraint. **(80h:70007)**

Žuravlev, V. F. *See* **Žbanov, Ju. K., (80h:70007)**

70F30 Impulsive motion

Beneš, Karel On modelling dynamic systems excited by the Dirac function. (Czech and Russian summaries) **80k:70017**

Secondary classifications:

Giacaglia, Giorgio E. O. ★Методы теории возмущений для нелинейных систем. (Russian) [Perturbation methods in nonlinear systems] **(80h:34002)**

(Markeev, A. P.) *See* **Giacaglia, Giorgio E. O., (80h:34002)**

(Sokol'skiĭ, A. G.) *See* **Giacaglia, Giorgio E. O., (80h:34002)**

70F35 Collisions

Irigoyen, Jeanne Maÿlis Une nouvelle mise en équations du problème des trois corps, adaptée à l'étude de la collision triple. (English summary) **80j:70008a**

Sur la variété de collision triple dans le problème plan des trois corps. (English summary) **80j:70008b**

Ramanathan, G. V. A problem in classical mechanics. **80c:70017**

Sokolov, S. N. Classical analogues of the Moeller operators, of the Pearson example and of the Birmann-Kato invariance principle. (Italian and Russian summaries) **80i:70016**

Secondary classifications:

Devaney, Robert L. Transverse heteroclinic orbits in the anisotropic Kepler problem. **(80g:58028)**
Lacombe Zamora, Ernesto A. Geometric regularization in the 2-body problem. **(80g:58032)**

70F99 None of the above, but in this section

Dukić, Đorđe S. On the integral invariants in classical mechanics for quasi-coordinates. **80d:70022**
On the brachistochronic motion of a dynamic system. **80d:70023**
Fawzy, I. A simplified stability criterion for nonconservative systems. **80d:70024**
Fusco, Giorgio On the M-independence of the position functions in plane motions. (Italian. English summary) **80c:70018**
Generalization of the concept of center of mass. (Italian. English summary) **80i:70017**
Greenspan, Donald *See* **LaBudde, Robert A., 80e:70018**
LaBudde, Robert A. (*with* Greenspan, Donald) Discrete mechanics for anisotropic potentials. **80e:70018**
Orenstein, S. *See* **Rafanelli, K., 80e:70019a** *and* **Rafanelli, K., 80e:70019b**
Rafanelli, K. (*with* Orenstein, S.) An extended particle with interacting constituents. I. Relativistic center of mass. (Italian summary) **80e:70019a**
(*with* Orenstein, S.) An extended particle with interacting constituents. II. Hamiltonian formulation. (Italian and Russian summaries) **80e:70019b**
Sen, J. Collective angular momentum in classical mechanics. **80f:70018**

Secondary classifications:

Ėneev, T. M. *See* **Kozlov, N. N., (80k:85007)**
Kozlov, N. N. (*with* Ėneev, T. M.) The principle of virtual contacts. Method of calculating the process of accumulation of planets for a new cosmological model. (Russian. English summary) **(80k:85007)**
O'Brien, G. Orbital equations in the relativistic two-body problem. **(80b:83006)**
Stey, G. C. Statistical viewpoint in classical mechanics. **(80m:82008)**

70Gxx General representations of dynamical systems [See also 58F05.]

70G05 Riemannian geometry, tensorial methods [See also 53A45, 53A50, 53B20.]

Petou, A. Étude variationnelle des décalages spectraux. (English summary) **80m:70019a**
Étude variationnelle des décalages spectraux. II. Aspect relativiste. (English summary) **80m:70019b**
Thirring, Walter ★Lehrbuch der mathematischen Physik. Band 1. **80f:70012**

70G10 Generalized coordinates

Stavrinidis, C. P. A procedure for coupling dynamical equations. **80i:70019**

Secondary classifications:

Akyeampong, D. A. Tensor harmonics in the helicity basis. **(80c:81005)**

70G15 Space of events

Chamorro, A. (*with* Chinea, F. J.) Generalized Galilei groups in classical dynamics. (Italian and Russian summaries) **80b:70019**
Chinea, F. J. *See* **Chamorro, A., 80b:70019**

70G20 Impulse-energy space

70G25 Configuration space

Bertotti, Bruno (*with* Easthope, Paul) The equivalence principle according to Mach. **80d:70025**
Easthope, Paul *See* **Bertotti, Bruno, 80d:70025**
Harlamov, M. P. Some applications of differential geometry in the theory of mechanical systems. (Russian) **80h:70014**
Ikeda, Mineo (*with* Maeda, Shigeru) On symmetries in a discrete model of mechanical systems. **80a:70019**
Laugbaar, Henry L. Geometry and stability theory. (French summary) **80e:70020**
Maeda, Shigeru *See* **Ikeda, Mineo, 80a:70019**

70G30 State space

70G35 Phase space

Arsen'ev, A. A. The Kubo-Martin-Schwinger states of classical dynamical states with infinite-dimensional phase space. (Russian. English summary) **80d:70026**
Broucke, R. Equations of motion in phase space. **80k:70018**
Cerjan, Charles (*with* Reinhardt, William P.) Critical point analysis of instabilities in Hamiltonian systems: classical mechanics of stochastic intramolecular energy transfer. **80f:70013**
Channell, Paul J. An illustrative example of the Chirikov criterion for stochastic instability. **80g:70006**
Reinhardt, William P. *See* **Cerjan, Charles, 80f:70013**

70G99 None of the above, but in this section

Afraimovič, V. S. (*with* Šil'nikov, L. P.) The ring principle in problems of interaction between two self-oscillating systems. **80k:70019**
Andreev, A. S. Asymptotic stability of the motions of certain nonautonomous mechanical systems subject to dissipative forces. (Russian) **80d:70027**
Berry, M. V. Regular and irregular motion. **80e:70021**
Kiričenko, M. F. (*with* Slabospic'kiĭ, O. S.) Conditions of identifiability for dynamical systems. (Russian. English summary) **80m:70020**
Šil'nikov, L. P. *See* **Afraimovič, V. S., 80k:70019**
Slabospic'kiĭ, O. S. *See* **Kiričenko, M. F., 80m:70020**
Telokonnikov, G. K. Associative Hamiltonian algebras. (Russian. English summary) **80f:70014**
Vujanović, B. D. A geometrical approach to the conservation laws of non-conservative dynamical systems. **80a:70020**

70Hxx Hamiltonian and Lagrangian mechanics [See also 58F05.]

70H05 Hamilton's equations

Barrabes, C. *See* **Boisseau, B., 80h:70015**
Baumgarte, Joachim Das Oszillator-Kepler Problem und die Lie-Algebra. **80e:70020**
Benavent, F. (*with* Gomis, J.) Poincaré-Cartan integral invariant for constrained systems. **80c:70019**
Boisseau, B. (*with* Barrabes, C.) Gauge theory in Hamiltonian classical mechanics: the electromagnetic and gravitational fields. **80h:70015**
Caboz, R. *See* **Lonke, A., 80k:70023**
Case, K. M. Conserved densities. **80k:70020**
Constantinescu, Ilie N. Equations in analytical mechanics for material systems with jump-like varying characteristics. (Russian. Armenian and English summaries) **80a:70021**
Enikova, M. M. (*with* Karlukovski, V. I.) Dynamical systems with SO(4) and SO(3, 1) symmetry. **80k:70021**
Ford, Joseph A picture book of stochasticity. **80d:70028**
Gomis, J. *See* **Benavent, F., 80c:70019**
Karlukovski, V. I. *See* **Enikova, M. M., 80k:70021**
Kummer, Martin On resonant Hamiltonians with two degrees of freedom near an equilibrium point. **80k:70022**
Li, Bang He The universal integral invariants of a conservative mechanical system. (Chinese) **80h:70016**
Lonke, A. (*with* Caboz, R.) Stability criterion for Hamiltonian systems. **80k:70023**
Marchal, C. The quasi-integrals. **80j:70009**
Moser, Jürgen Nearly integrable and integrable systems. **80d:70029**
Mukunda, N. Aspects of the Hamilton-Jacobi form of dynamics. **80d:70030**
Nikitina, N. V. A special case of a mapping of coordinates of a nonholonomic dissipative system. (Russian) **80b:70021**
Quade, C. Richard Development of canonical transformations from Hamilton's principle. **80d:70031**
Šabad, A. E. *See* **Serebrennikov, V. B.; et al., 80d:70032**
Serebrennikov, V. B. (*with* Šabad, A. E.; Smorodinskiĭ, Ja. A.) O_4-covariant Hamiltonian formalism for bounded motion in a central field of force. (Italian and Russian summaries) **80d:70032**
Smorodinskiĭ, Ja. A. *See* **Serebrennikov, V. B.; et al., 80d:70032**
Takens, Floris Some remarks on Souriau's theory of elementary systems. **80k:70024**
Treve, Yvain M. Theory of chaotic motion with application to controlled fusion research. **80f:70015**

Secondary classifications:

Adler, M. Completely integrable systems and symplectic actions. **(80h:58032)**
Andreassi, Gabriele Generalized groups of functions. (Italian. English summary) **(80h:58025)**
Arĭanyh, I. S. Quadratic representations of the solutions of the Volterra problem. (Russian. Uzbek summary) **(80e:70006)**
Čirikov, Boris V. A universal instability of many-dimensional oscillator systems. **(80h:70022)**
Dominici, D. A composite system of three relativistic particles with half-integer total angular momentum. **(80g:81011)**
Galgani, Luigi *See* **Giorgilli, Antonio, (80b:58035)**
Giorgilli, Antonio (*with* Galgani, Luigi) Formal integrals for an autonomous Hamiltonian system near an equilibrium point. **(80b:58035)**
Gotay, Mark J. (*with* Nester, James M.) Presymplectic Lagrangian systems. I. The constraint algorithm and the equivalence theorem. **(80j:58035)**
Hölder, Ernst Treibstoffoptimale Störungen von Satellitenbahnen im Raum eines anziehenden Zentrums. II. Störungsdifferentialgleichungen bei Raketenschub als Indikatrix eines Variationsproblems. **(80f:93040)**
Kobussen, J. A. Applications of generalized Hamiltonian dynamics. **(80f:81113)**
Martins, Roberto Vieira Some aspects of resonance problems of celestial mechanics. (Portuguese) **(80e:70016)**
Menzio, Maria Rosa (*with* Tulczyjew, Włodzimierz M.) Infinitesimal symplectic relations and generalized Hamiltonian dynamics. (French summary) **(80h:58027)**
Misra, B. Nonequilibrium entropy, Lyapounov variables, and ergodic properties of classical systems. **(80k:82045)**
Nester, James M. *See* **Gotay, Mark J., (80j:58035)**
Pit'ev, N. P. Coefficients of the gradient of the direction field in systems that permit separation of variables. (Russian. English summary) **(80k:70015)**
Rohrlich, F. Relativistic Hamiltonian dynamics. I. Classical mechanics. **(80e:83029)**
Takens, Floris Symmetries, conservation laws and symplectic structures; elementary systems. **(80j:58038)**
Thimm, Anton Integrabilität beim geodätischen Fluß. **(80j:58060b)**
Tulczyjew, Włodzimierz M. *See* **Menzio, Maria Rosa, (80h:58027)**

von Westenholz, C. Scale symmetry and virial theorem. **(80d:58030)**
Wojciechowski, S. Completely integrable systems of N particles in one dimension. **(80a:34053)**
Yourgrau, W. The enigmatic role of variational principles in theoretical physics. **(80j:49043)**
Beiträge:
Differentialgeometrie ★Beiträge zur Differentialgeometrie, Heft 2. **(80j:58060a)**
Differential geometry *See* **Beiträge: Differentialgeometrie, (80j:58060a)**

70H10 Liouville's theorem

Secondary classifications:

Marmo, G. (*with* Saletan, E. J.; Simoni, A.) A general setting for reduction of dynamical systems. **(80e:58021)**
Saletan, E. J. *See* **Marmo, G.; et al., (80e:58021)**
Simoni, A. *See* **Marmo, G.; et al., (80e:58021)**

70H15 Canonical transformations

Baumgarte, Joachim Eine kanonische Transformation für die Kepler-Bewegung, welche ohne Dimensionserhöhung die Zeit in die exzentrische Anomalie überführt. (English summary) **80f:70016**
Caldas, I. L. (*with* Tasso, H.) Constants of motion of nonlinear equations in an extended Poisson formalism. **80h:70017**
Camarena Badia, V. (*with* Petriz Calvo, F.; Ribera Pascual, J.) Problems of convergence in the theory of perturbations of canonical systems. (Spanish. English summary) **80f:70017**
Cantrijn, Frans On structure-preserving transformations for Newtonian Lie-admissible equations. **80i:70020**
See also **Sarlet, Willy, 80b:70022**
Howland, Robert A., Jr. A note on the application of the von Zeipel method to degenerate Hamiltonians. **80d:70033**
Hussain, Munawar An equivalence theorem in Poincaré-Četaev variables. **80d:70034**
Kurinkovski, V. I. Classical dynamic systems with the symmetry of the Kepler problem. (Russian summary) **80a:70022**
Kaufman, Allan N. The Lie transform: a new approach to classical perturbation theory. **80c:70022**
Leach, P. G. L. On nonlinear transformations for time-dependent polynomial Hamiltonians. **80e:70023a**
Towards an invariant for the time-dependent anharmonic oscillator. **80e:70023b**
Mulicki, Đorđe On the canonical formalism with the derivatives of higher order. **80d:70035**
See also , **80d:70035**
Petriz Calvo, F. *See* **Camarena Badia, V.; et al., 80f:70017**
Ribera Pascual, J. *See* **Camarena Badia, V.; et al., 80f:70017**
Sarlet, Willy (*with* Cantrijn, Frans) On some aspects of the inverse problem for general first-order systems. **80b:70022**
Tasso, H. *See* **Caldas, I. L., 80h:70017**

Secondary classifications:

Ferraz Mello, Sylvio Lie mappings and formal solutions. (Portuguese) **(80g:58029)**
Lichnerowicz, André Sur la géométrie des transformations canoniques. (English summary) **(80j:58036)**
Moshinsky, Marcos ★Groups in physics. **(80h:81078)**

70H20 Hamilton-Jacobi equations

Blaquière, Augustin From the main equation to the Klein-Gordon equation. **80f:70018**
Hirondel, D. Predictive relativistic mechanics. **80c:70020**
Hussain, Munawar Generalised Chaplygin's equations and their integration. **80b:70023**
Jakimova, K. E. Integration of Poincaré-Četaev equations. (Russian. English summary) **80b:70024**
Kurlandzki, Jerzy Canonical formalism in distribution spaces. II. (Russian summary) **80k:70025**
Marinov, M. S. An alternative to the Hamilton-Jacobi approach in classical mechanics. **80f:70019**
Rumjancev, V. V. (*with* Sumbatov, A. S.) On the problem of a generalization of the Hamilton-Jacobi method for nonholonomic systems. (German and Russian summaries) **80e:70024**
Samuel, J. A phase space approach to generalized Hamilton-Jacobi theory. **80k:70026**
Šapovalov, V. N. Symmetry and the separation of variables in the Hamilton-Jacobi equation. I, II. (Russian) **80b:70025**
Sumbatov, A. S. *See* **Rumjancev, V. V., 80e:70024**
Van Dooren, René Second form of the generalized Hamilton-Jacobi method for nonholonomic dynamical systems. (French summary) **80b:70026**

Secondary classifications:

Brojan, J. B. Solutions of the Hamilton-Jacobi equation in the Coulomb potential and the quasiclassical approximation. **(80m:81037)**
Havas, Peter The conservation laws of nonrelativistic classical and quantum mechanics for a system of interacting particles. **(80b:81115)**
Rumjancev, V. V. The Hamiltonian principle and Hamilton-Jacobi methods for nonholonomic systems. (Russian. English and Serbo-Croatian summaries) **(80a:49053)**

70H25 Hamilton's principle

Bountis, Tassos *See* **Helleman, Robert H. G., 80k:70027**

Helleman, Robert H. G. Variational solutions of non-integrable systems. **80d:70036**
(*with* Bountis, Tassos) Periodic solutions of arbitrary period, variational methods. **80k:70027**
Leipholz, H. H. E. Variational principles for non-conservative problems, a foundation for a finite element approach. **80d:70037**

Secondary classifications:

Lax, Peter D. A Hamiltonian approach to the KdV and other equations. **(80d:35129)**
Veličenko, V. V. Minimal interpretation of the least action principle. (Russian) **(80m:49035)**

70H30 Other variational principles

Bressan, Sergio Concerning a dissipative system subject to time-dependent forces. (Italian) **80h:70018**
Buchdahl, H. A. Perturbed characteristic functions: application to the linearized gravitational field. **80h:70019**
Fiziev, P. P. On the relation between the symmetry of the dynamic equations and the Noether's theorem in classical Lagrange mechanics. (Russian summary) **80k:70020**
Knapecz, G. Invariants of equivalent Lagrangians. **80d:70038**
Kobussen, J. A. Some comments on the Lagrangian formalism for systems with general velocity-dependent forces. **80i:70021**
Generalized Hamiltonian dynamics for fields. **80d:70039**
Percival, Ian C. A variational principle for invariant tori of fixed frequency. **80c:70021**
Vanderbauwhede, André L. Potential operators and the inverse problem of classical mechanics. **80b:70027**
Vujanović, B. D. Conservation laws of dynamical systems via d'Alembert's principle. (French and German summaries) **80d:70040**

Secondary classifications:

Brendelev, V. N. Commutation relations in nonholonomic mechanics. (Russian. English summary) **(80c:70016)**
Leipholz, H. H. E. On a variational principle for Beck's rod. **(80b:73018)**
Peton, A. Étude variationnelle des décalages spectraux. (English summary) **(80m:70019a)**
Étude variationnelle des décalages spectraux. II. Aspect relativiste. (English summary) **(80m:70019b)**
Santilli, Ruggero Maria ★Foundations of theoretical mechanics. I. **(80d:70002)**
Toland, J. F. On the stability of rotating heavy chains. **(80d:49016)**
Vanderbauwhede, André L. Potential operators and variational principles: a generalization. **(80e:49041)**

70H35 Lagrange's equation of motion

Bahar, Leon Y. *See* **Kwatny, Harry G.; et al., 80j:70010**
Ferrero, Giorgio Dynamical systems subject to generalized forces which are reducible to canonical form. (Italian. English summary) **80m:70021**
Freundlich, Yehudah *See* **Rosen, Joe, 80d:70041**
Horváthy, P. Variational formalism for spinning particles. **80b:70028**
Kwatny, Harry G. (*with* Bahar, Leon Y.; Massimo, F. M.) Linear nonconservative systems with asymmetric parameters derivable from a Lagrangian. **80j:70010**
Massimo, F. M. *See* **Kwatny, Harry G.; et al., 80j:70010**
Rosen, Joe (*with* Freundlich, Yehudah) Symmetry and conservation. **80d:70041**

Secondary classifications:

Lusanna, L. An extension of the second Noether theorem. (Italian and Russian summaries) **(80i:70022)**
Ray, John R. (*with* Reid, James L.) Noether's theorem, time-dependent invariants and nonlinear equations of motion. **(80i:49002)**
Reid, James L. *See* **Ray, John R., (80i:49002)**

70H99 None of the above, but in this section

Bahar, Leon Y. (*with* Kwatny, Harry G.) Exact Lagrangians for linear nonconservative systems. **80c:70022**
Belikov, S. A. The effect of gyroscopic forces on the stability of an autonomous Hamiltonian system with two degrees of freedom. (Russian. English summary) **80k:70028**
Breitenecker, M. (*with* Thirring, Walter) Scattering theory in classical dynamics. **80h:70021**
Broomhead, D. S. The self interaction and mutual interaction of limit cycles. The possibility of chaotic behaviour. **80m:70022**
Choodnovsky, Gregory V. *See* **Chudnovsky, David V., 80g:70007**
Chudnovsky, David V. (*with* Choodnovsky, Gregory V.) Completely integrable class of mechanical systems connected with Korteweg-de Vries and multicomponent Schrödinger equations. **80g:70007**
Đukić, Đ. S. (*with* Strauss, A. M.) Noether's theory for nonconservative generalised mechanical systems. **80m:70023**
Fokas, A. S. Generalized symmetries and constants of motion of evolution equations. **80j:70011**
Hamitova, R. S. The basis of conservation laws in mechanics. (Russian) **80k:70029**
Kwatny, Harry G. *See* **Bahar, Leon Y., 80c:70022**
Lusanna, L. An extension of the second Noether theorem. (Italian and Russian summaries) **80i:70022**
Maeda, Shigeru On quadratic invariants in a discrete model of mechanical systems. **80e:70025**
Marmo, G. (*with* Saletan, E. J.; Simoni, A.) Reduction of symplectic manifolds through constants of the motion. (Italian and Russian summaries) **80f:70020**
Saletan, E. J. *See* **Marmo, G.; et al., 80f:70020**

Surlet, Willy On the transition between second-order and first-order systems within the context of the inverse problem of Newtonian mechanics. **80i:70023**
Simoni, A. *See* Marmo, G.; et al., **80f:70020**
Strauss, A. M. *See* Djukic, Dj. S., **80m:70023**
Tasso, H. A new class of Poisson brackets and related equations of evolution. **80g:70008**
Thirring, Walter *See* Breitenecker, M., **80h:70021**
Tkalič, V. S. *See* Zaplatnil, V. I., **80m:70024**
Zaplatnil, V. I. (*with* Tkalič, V. S.) A variational principle for one-dimensional dissipative systems. (Russian) **80m:70024**

Secondary classifications:

Ablowitz, Mark J. (*with* Ramani, A.; Segur, Harvey) Nonlinear evolution equations and ordinary differential equations of Painlevé type. **(80a:58001)**
Airault, H. Poles of nonlinear evolution equations and integrable dynamical systems. **(80m:58022)**
Calogero, F. Motion of poles and zeros of special solutions of nonlinear and linear partial differential equations and related "solvable" many-body problems. (Italian and Russian summaries) **(80a:58023)**
Cushman, Richard The relationship between the index of a strongly stable periodic linear Hamiltonian vectorfield and the index of its stability domain. **(80g:58027)**
Ginzburg, A. R. (*with* Timofeev, A. V.) On adaptive stabilization of programed motions of mechanical systems. **(80d:93045)**
Ichimura, Atsushi *See* Saitô, Nobuhiko, **(80k:58048)**
Lasiett, L. Jackson Some illustrations of stochasticity. **(80k:58075)**
Orenstein, S. *See* Rafanelli, K., **(80c:70019b)**
Perelomov, A. M. Exact results for one-dimensional many-particle systems. (Russian. English summary) **(80k:81198)**
Rafanelli, K. (*with* Orenstein, S.) An extended particle with interacting constituents. II. Hamiltonian formulation. (Italian and Russian summaries) **(80c:70019b)**
Ramani, A. *See* Ablowitz, Mark J.; et al., **(80a:58001)**
Saitô, Nobuhiko (*with* Ichimura, Atsushi) Ergodic components in the stochastic region in a Hamiltonian system. **(80k:58048)**
Segur, Harvey *See* Ablowitz, Mark J.; et al., **(80a:58001)**
Spirig, F. Algebraic aspects of perturbation theories. **(80m:58033)**
Timofeev, A. V. *See* Ginzburg, A. R., **(80d:93045)**
Wan, Yieh Hei Bifurcation into invariant tori at points of resonance. **(80b:58046)**
Weinstein, Alan D. A universal phase space for particles in Yang-Mills fields. **(80e:58023)**

70Jxx Linear vibration theory

70J05 Finite degree of freedom systems

Funakawa, Masaya *See* Ishihara, Kunihiko, **80c:70023**
Glasgow, D. A. *See* Nelson, H. D., **80e:70026**
Ishihara, Kunihiko (*with* Funakawa, Masaya) Response analysis of a vibrational system of multi degrees of freedom subjected to an arbitrary force. **80c:70023**
Nelson, H. D. (*with* Glasgow, D. A.) Eigenrelations for general second-order systems. **80e:70026**
Nicholson, David W. Comments on damped response in linear systems. **80b:70029**

Secondary classifications:

Čeiankov, B. Two-frequency vibrations with an external perturbation in the presence of a resonance of second rank. (Bulgarian. Russian and English summaries) **(80k:34052)**

70J10 Normal modes of vibrations

Secondary classifications:

Allen, J. S. *See* Grimshaw, R. H. J., **(80e:34027)**
Grimshaw, R. H. J. (*with* Allen, J. S.) Linearly coupled, slowly varying oscillators. **(80e:34027)**

70J15 Conservative systems

Secondary classifications:

Zlotnik, A. A. A projection-difference scheme for the equation of a vibrating string. (Russian) **(80f:65103)**

70J20 Nonconservative systems

Nicholson, David W. On the forced vibration of a damped linear system. **80e:70027a**
A note on vibrations of damped linear systems. **80e:70027b**
Rotgauz, B. A. Generalization of a stability theorem to the motion of nonconservative systems. (Russian) **80b:70030**

70J25 Stability of oscillatory motions

Ariaratnam, S. T. (*with* Tam, D. S. F.) Random vibration and stability of a linear parametrically excited oscillator. (German and Russian summaries) **80b:70031**
(Litvin-Sedoĭ, M. Z.) *See* Schmidt, Günter, **80d:70042**
Schmidt, Günter ★Параметрические колебания. (Russian) [Parametric oscillations] **80d:70042**
(Starzinskiĭ, V. M.) *See* Schmidt, Günter, **80d:70042**
Tam, D. S. F. *See* Ariaratnam, S. T., **80b:70031**

Secondary classifications:

Müller, Peter C. ★Stabilität und Matrizen. **(80d:34068)**

70J99 None of the above, but in this section

Likins, Peter W. *See* Ohkami, Yoshiaki, **80j:70012**
Ohkami, Yoshiaki (*with* Likins, Peter W.) Eigenvalues and eigenvectors for hybrid coordinate equations of motion for flexible spacecraft. **80j:70012**

70Kxx Nonlinear oscillations

Secondary classifications:

Broomhead, D. S. The self interaction and mutual interaction of limit cycles. The possibility of chaotic behaviour. **(80m:70022)**

70K05 Phase plane analysis

Vigfusson, J. O. On Poincaré cycles of the linear chain of oscillators. **80f:70021**

Secondary classifications:

Friedrich, N. Lösung von Randwertproblemen der Schwingungsgleichung für ein Modell eines Triebwerkeinlaufs. (English summary) **(80b:76033)**

70K10 Limit cycles

Stegel, H. Ein mathematisches Modell zur Beschreibung nichtlinearer Oszillatoren. **80c:70024**

70K15 Ljapunov theorems

Secondary classifications:

Anapol'skiĭ, L. Ju. (*with* Irtegov, V. D.; Matrosov, V. M.) Methods of constructing Ljapunov functions. (Hungarian) **(80i:34076)**
Gutowski, Roman An introduction to the stability of motion of continua. (Polish) **(80g:73026)**
Irtegov, V. D. *See* Anapol'skiĭ, L. Ju.; et al., **(80i:34076)**
Matrosov, V. M. *See* Anapol'skiĭ, L. Ju.; et al., **(80i:34076)**

70K20 Stability

Akulenko, L. D. Forced periodic motions in non-Hamiltonian systems with one degree of freedom. **80b:70032**
Čirikov, Boris V. A universal instability of many-dimensional oscillator systems. **80b:70022**
Gupta, K. K. Some recent advances in numerical methods in structural dynamics. **80d:70043**
Martinjuk, A. A. *See* Mitropol'skiĭ, Ju. O., **80b:70023**
Mil'štein, G. N. Stability and stabilization of periodic motions of autonomous systems. **80m:70025**
Mitropol'skiĭ, Ju. O. (*with* Martinjuk, A. A.) Some trends in studies of the stability of periodic motions and the theory of nonlinear oscillations. (Russian) **80b:70023**
Pustyl'nikov, L. D. Unbounded growth of the action variable in certain physical models and the problem of stochasticity. (Russian) **80j:70013**
Rechester, Alexander B. (*with* Stix, Thomas H.) Stochastic instability of a nonlinear oscillator. **80b:70033**
Sosnickiĭ, S. P. A sufficient criterion for the instability of autonomous systems. (Russian) **80b:70034**
Stix, Thomas H. *See* Rechester, Alexander B., **80b:70033**

Secondary classifications:

Čelankov, B. (*with* Simeonova, D. M.) On the stability of a class of mechanical systems. (Bulgarian. Russian and English summaries) **(80j:34056)**
Feigin, M. I. On the behavior of dynamic systems in the vicinity of existence boundaries of periodic motions. **(80i:34068)**
Gelig, A. H. (*with* Leonov, G. A.; Jakubovič, V. A.) ★Устойчивость нелинейных систем с неединственным состоянием равновесия. (Russian) [The stability of nonlinear systems with a nonunique equilibrium state] **(80g:93061)**
Goldberg, Wallace (*with* Hochstadt, Harry) On a Hill's equation with two gaps in its spectrum. **(80h:34033)**
Gutowski, Roman *See* Martinjuk, A. A., **(80k:34070)**
Hochstadt, Harry *See* Goldberg, Wallace, **(80h:34033)**
Jakubovič, V. A. *See* Gelig, A. H.; et al., **(80g:93061)**
Keikel, K. Parametererregte Schwingungen elastischer Rotoren. **(80k:73030)**
Leonov, G. A. *See* Gelig, A. H.; et al., **(80g:93061)**
Martinjuk, A. A. (*with* Gutowski, Roman) ★Интегральные неравенства и устойчивость движения. (Russian) [Integral inequalities and stability of motion] **(80k:34070)**
Nehoroševe, N. N. An exponential estimate of the time of stability of nearly integrable Hamiltonian systems. II. (Russian) **(80m:58017)**
Palotás, L. M. (*with* Szolgay, P.) Zu Fragen der Synchronisation nichtlinearer Schwingungssysteme. **(80k:34046)**
Pecelli, G. (*with* Thomas, E. S.) Normal modes, uncoupling, and stability for a class of nonlinear oscillators. **(80k:34053)**
Simeonova, D. M. On the stability of the zero solution of a system of two nonlinearly coupled harmonic oscillators. (Bulgarian. Russian and English summaries) **(80j:34063)**
See also Čelankov, B., **(80j:34056)**
(Szebehely, Victor G.) *See* Instabilities in dynamical systems, **(80k:70002)**
Szolgay, P. *See* Palotás, L. M., **(80k:34046)**
Thomas, E. S. *See* Pecelli, G., **(80k:34053)**

Celestial mechanics *See* **Instabilities in dynamical systems, (80k:70002)**
Cortina d'Ampezzo *See* **Instabilities in dynamical systems, (80k:70002)**
Dynamical systems *See* **Instabilities in dynamical systems, (80k:70002)**
Instabilities in dynamical systems ★Instabilities in dynamical systems. **(80k:70002)**
NATO Advanced Study Institute:
Instabilities in Dynamical Systems *See* **Instabilities in dynamical systems, (80k:70002)**

70K30 Nonlinear resonances

Babickiĭ, V. I. (*with* Krupenin, V. L.) On the theory of parametric resonances of vibration-impact systems. **80f:70022**
Krupenin, V. L. *See* **Babickiĭ, V. I., 80f:70022**
Weinstein, Alan D. Simple periodic orbits. **80d:70044**
Žuravlev, S. G. Conditionally periodic solutions of the canonical systems of differential equations in nonautonomous resonant case. **80f:70023**

Secondary classifications:

Bajaj, A. K. *See* **Sethna, P. R., (80e:34029)**
Frolov, K. V. V. O. Kononenko's investigations in nonlinear oscillation theory and their significance and development. **(80d:34043)**
de Groen, P. P. N. The nature of resonance in a singular perturbation problem of turning point type. **(80m:34054)**
Holmes, Philip J. Averaging and chaotic motions in forced oscillations. **(80m:34044)**
Ignat'ev, A. O. (*with* Savčenko, O. Ja.; Svetličnaja, N. V.) Stability in the critical case of n pairs of purely imaginary roots. (Russian) **(80j:34057)**
Keller, Jakob J. Non-linear self-excited acoustic oscillations. (German summary) **(80c:76045)**
(Kononenko, V. O.) *See* **Frolov, K. V., (80d:34043)**
Martelli, Mario On forced nonlinear oscillations. **(80h:34051)**
Savčenko, O. Ja. *See* **Ignat'ev, A. O.; et al., (80j:34057)**
Sethna, P. R. (*with* Bajaj, A. K.) Bifurcations in dynamical systems with internal resonance. **(80e:34029)**
Svetličnaja, N. V. *See* **Ignat'ev, A. O.; et al., (80j:34057)**

70K99 None of the above, but in this section

Case, K. M. Integration of linearized nonlinear evolution equations. **80l:70024**
Dragani, Raffaele Effect of viscous dissipation on forced vibrations in nonlinear systems with clearances or stops. (Italian. English summary) **80d:70045**
Johnson, T. L. (*with* Rand, R. H.) On the existence and bifurcation of minimal normal modes. (French and German summaries) **80e:70028**
Liu, Bao Ping The integral equation method in the nonlinear vibrations of systems with several degrees of freedom. (Chinese) **80d:70046**
Nguyen Van Dao Parametric oscillations of dynamical systems with cubic term at the modulation depth under the influence of nonlinear frictions. **80h:70024**
Pietruszka, W. D. Zur Berechnung periodischer Lösungen in Systemen mit Reibung. **80f:70024**
Rand, R. H. *See* **Johnson, T. L., 80e:70028**
Rimarenko, V. V. Einige Aspekte der Anwendung der Störungstheorie auf Probleme der Theorie nichtlinearer Schwingungen. **80a:70023**
Rogačev, V. M. The stability of periodic oscillations of nonlinear systems. (Russian) **80c:70029**
Rusbridge, M. G. Motion of the sprung pendulum. **80k:70030**
Skripnik, A. I. Problem-oriented software for asymptotic methods of nonlinear mechanics. (Russian. English summary) **80e:70030**
Vujičić, Veljko A. Quasilinear oscillations of mechanical systems. (Russian. English and Serbo-Croatian summaries) **80e:70031**

Secondary classifications:

Akulenko, L. D. Control of motion of a nonlinear vibratory system by displacement of the equilibrium point. **(80e:93081)**
Gutowski, Roman Sensitivity of the solutions for an equation of nonlinear string oscillations to variations in the coefficients of its linear part. (Russian) **(80h:73032)**
Itô, Akira A perturbation theory of a quasiperiodic motion. An asymptotic expansion method. **(80j:34045)**
Laloy, M. On the inversion of the Lagrange-Dirichlet theorem in the case of an analytic potential. (French and German summaries) **(80h:58040)**
Obuhov, A. M. Structure and questions of the modeling of quadratically nonlinear systems. (Russian) **(80j:34033)**
Papula, A. N. Dynamic interaction of a torsion-vibrational system with an actuator of bounded power. (Russian) **(80d:73104)**
Riddell, Robert J., Jr. Numerical solution of the Helmholtz equation for two-dimensional polygonal regions. **(80h:65148)**
Wang, Kang Ning Observability and controllability of an elastic vibrating system with controller. (Chinese. English summary) **(80h:93032)**

70L05 Random vibrations [See also 93Exx.]

Junupov, A. K. Resonance in stochastic systems. (Russian) **80d:70047**
Kolomiec', V. G. Random oscillations of nonlinear systems with distributed parameters. (Russian) **80d:70048**
Model, R. Kombinationsresonanz eines stochastisch erregten Schwingungssystems. (English and Russian summaries) **80a:70024**
Müller, Peter C. Kovarianzanalyse von stationären nichtlinearen Zufallsschwingungen. **80h:70031**
Renger, A. Eine Dichtegleichung für Schwingungssysteme bei gleichzeitigen kontinuierlichen und diskreten stochastischen Erregungen. (English and Russian summaries) **80f:70025**
Spanos, P.-T.D. Stochastic analysis of oscillators with nonlinear damping. (French and German summaries) **80j:70014**

Secondary classifications:

Huisman, W. C. (*with* Yavin, Yaakov) Numerical studies of the performance of an optimally controlled nonlinear stochastic oscillator. **(80m:93095)**
Yavin, Yaakov *See* **Huisman, W. C., (80m:93095)**

70Mxx Orbital mechanics

70M05 Satellite problems

Beleckiĭ, V. V. (*with* Pogorelov, D. Ju.) Probabilistic investigation of the passive stabilization time of a satellite. (Russian) **80k:70032**
Broucke, R. On Pfaff's equations of motion in dynamics; applications to satellite theory. **80c:70025**
(Dallas, S. S.) *See* **Jupp, Alan H., 80i:70025**
(Diehl, R. E.) *See* **Jupp, Alan H., 80i:70025**
Donaldson, John D. *See* **Jezewski, Donald J., 80j:70015**
Hitzl, Donald L. (*with* Levinson, David A.) Attitude stability of a spinning symmetric satellite in a planar periodic orbit. **80f:70026**
Jezewski, Donald J. (*with* Donaldson, John D.) An analytic approach to optimal rendezvous using Clohessy-Wiltshire equations. **80j:70015**
Jupp, Alan H. Comments on: "The motion of a satellite in resonance with the second-degree sectorial harmonic" [Celestial Mech. **16** (1977), no. 1, 97–121); MR 56 #17296] by S. S. Dallas and R. E. Diehl. **80i:70025**
Kane, Thomas R. (*with* Levinson, David A.) Formulation of equations of motion for complex spacecraft. **80m:70026**
Kostelecký, J. The error of the first order theory in the inclination near resonance. (Russian summary) **80m:70027**
Levinson, David A. *See* **Hitzl, Donald L., 80f:70026** *and* **Kane, Thomas R., 80m:70026**
Lidov, M. L. (*with* Teslenko, N. M.) Optimization of the solution of some problems of aircraft control by a parameter gradient method. (Russian) **80e:70032**
Luk'janov, S. S. The problem of control of the motion of a spacecraft by light pressure forces in the neighborhood of a collinear libration point. (Russian) **80m:70028**
Mel'nik, N. V. *See* **Saryčev, V. A.; et al., 80d:70050**
Moldabaev, S. M. Stabilization of the steady state motions of mechanical systems. (Russian. Kazakh summary) **80c:70026**
Myint-U, Tyn An alternative method on complete integrals of plane eikonal equations. **80d:70049**
Novoselov, V. S. Asymptotic theory of a magnetic damper. **80g:70009**
Pogorelov, D. Ju. *See* **Beleckiĭ, V. V., 80k:70032**
Popescu, Mihai On an optimal problem in thermodynamics of the re-entry of space vehicles into the atmosphere. (Romanian. English summary) **80m:70029**
Saryčev, V. A. (*with* Sazonov, V. V.; Mel'nik, N. V.) Spatial periodic oscillations of a satellite relative to the center of mass. (Russian) **80d:70050**
Sazonov, V. V. *See* **Saryčev, V. A.; et al., 80d:70050**
Šidlichovský, M. Note on the shift of the center of libration of geosynchronous satellites. (Russian summary) **80k:70033**
Stellmacher, Irène Existence de solutions périodiques pour le mouvement d'une particule gravitant autour d'un sphéroïde. (English summary) **80j:70016**
Teschner, W. Optimality of intermediate-thrust arcs in rotating potential force fields. **80m:70030**
Teslenko, N. M. *See* **Lidov, M. L., 80e:70032**
Tong, Fu *See* **Wu, Lian Da; et al., 80f:70027**
Wang, Chang Bin *See* **Wu, Lian Da; et al., 80f:70027**
Wu, Lian Da (*with* Wang, Chang Bin; Tong, Fu) A seminumerical method for computing the second-order perturbation of artificial satellites. **80f:70027**
On the additional perturbations in the theory of motion of artificial satellites. **80k:70034**
Željakova, L. V. Perturbation of Andois elements in a problem of a rotational motion of a solid. (Russian. English summary) **80e:70033**

Secondary classifications:

Likins, Peter W. *See* **Ohkami, Yoshiaki, (80j:70012)**
Marchal, C. The quasi-integrals. **(80j:70009)**
Ohkami, Yoshiaki (*with* Likins, Peter W.) Eigenvalues and eigenvectors for hybrid coordinate equations of motion for flexible spacecraft. **(80j:70012)**

70M10 Orbital stability

Ančev, Atanas *See* **Lilov, L., 80e:70034**
Kunicyn, A. L. (*with* Perežogin, A. A.) On the stability of triangular libration points of the photogravitational restricted circular three-body problem. **80a:70025**
Lilov, L. (*with* Ančev, Atanas) Stability conditions for a satellite-gyrostat system in a circular orbit. (Bulgarian. Russian and English summaries) **80e:70034**
Martins, Roberto Vieira Sur la classification des orbites périodiques instables d'après Poincaré. (English summary) **80b:70035**
Perežogin, A. A. *See* **Kunicyn, A. L., 80a:70025**
Yoder, Charles F. Diagrammatic theory of transition of pendulum like systems. **80b:70036**

70M99 None of the above, but in this section

Baxter, B. E. Keplerian representation of a non-Keplerian orbit. **80m:70031**

70N05 Exterior ballistics

70P05 Variable mass, rockets

Glikman, L. G. On the problem of two bodies of variable mass. **80a:70026**
Hermesh, R. (*with* Katzir, S.; Kreindler, E.) Optimal thrust for maximal rocket turn. **80m:70032**
Katzir, S. *See* **Hermesh, R.; et al., 80m:70032**
Kreindler, E. *See* **Hermesh, R.; et al., 80m:70032**
Popescu, Mihai On some classes of isoperimetric problems related to the entry into the planetary atmosphere of a space vehicle equipped with rocket propulsion. (Romanian. English summary) **80m:70033**

73–XX MECHANICS OF SOLIDS

73–01 Elementary exposition, textbooks

Miklowitz, Julius ★The theory of elastic waves and waveguides. **80d:73001**
Wilde, Douglass J. ★Globally optimal design. **80d:73002**

73–02 Advanced exposition (research surveys, monographs, etc.)

Aleksandrov, A. Ja. (*with* Solov'ev, Ju. I.) ★Пространственные задачи теории упругости. (Russian) [Three-dimensional problems of the theory of elasticity] **80f:73001**
Alfutov, N. A. ★Основы расчета на устойчивость упругих систем. (Russian) [Foundations of computations of the stability of elastic systems] **80g:73001**
Amenzade, Ju. A. ★Theory of elasticity. **80h:73001**
(Andrianov, N. F.) *See* **Parton, V. Z.; et al., 80a:73001**
Baiceliĭvili, M. O. *See* **Kupradze, V. D.; et al., 80h:73002**
Bloom, Frederick ★Modern differential geometric techniques in the theory of continuous distributions of dislocations. **80k:73001**
Burčuladze, T. V. *See* **Kupradze, V. D.; et al., 80h:73002**
Čehov, Val. N. *See* **Guz', O. M.; et al., 80k:73002**
Čehov, Vlk. N. *See* **Guz', O. M.; et al., 80k:73002**
Černjavskiĭ, O. F. *See* **Gohfel'd, D. A.; et al., 80g:73002**
Černyšenko, I. S. *See* **Guz', O. M.; et al., 80k:73002**
Gegelia, T. G. *See* **Kupradze, V. D.; et al., 80h:73002**
Godunov, S. K. ★Элементы механики сплошной среды. (Russian) [Elements of continuum mechanics] **80e:73001**
Gohfel'd, D. A. (*with* Kononov, K. M.; Sadakov, O. S.; Černjavskiĭ, O. F.) Problems of the structural strength of thermally-stressed construction. (Russian) **80g:73002**
Guz', O. M. (*with* Černyšenko, I. S.; Čehov, Val. N.; Čehov, Vik. N.; Šnerenko, K. I.) Studies in the theory of thin shells with apertures (a survey). (Russian) **80k:73002**
Kononov, K. M. *See* **Gohfel'd, D. A.; et al., 80g:73002**
(Konyaeva, M.) *See* **Amenzade, Ju. A., 80h:73001**
Kravčenko, V. P. *See* **Kuhta, K. Ja., 80f:73002**
Kuhta, K. Ja. (*with* Kravčenko, V. P.) ★Нестационарные граничные задачи с непрерывно-дискретными параметрами. (Russian) [Nonstationary boundary value problems with continuous-discrete parameters] **80f:73002**
Kupradze, V. D. (*with* Gegelia, T. G.; Baĭeleĭšvili, M. O.; Burčuladze, T. V.) ★Three-dimensional problems of the mathematical theory of elasticity and thermoelasticity. **80h:73002**
See also **Gegelia, T. G.; et al., 80h:73002**
Moronov, N. F. ★Избранные двумерные задачи теории упругости. (Russian) [Selected two-dimensional problems of elasticity theory] **80g:73003**
(Novožilov, V. V.) *See* **Studies in elasticity and plasticity, 80d:73004**
Obolašvili, E. I. ★Преобразование Фурье и его применения в теории упругости. (Russian) [The Fourier transform and its application in elasticity theory] **80i:73001**
Oden, J. Tinsley The classical variational principles of mechanics. **80e:73002**
Parton, V. Z. (*with* Perlin, P. I.) ★Интегральные уравнения теории упругости. (Russian) [Integral equations in elasticity theory] **80a:73001**
Perlin, P. I. *See* **Parton, V. Z., 80a:73001**
Pidstrigač, Ja. S. (*with* Švec', R. M.) ★Термоупругость тонких оболочек. (Russian) [Thermoelasticity of thin shells] **80d:73003**
Reitman, M. I. (*with* Šapiro, G. S.) Optimal design of solid deformable bodies. (Russian) **80g:73004**
Sadakov, O. S. *See* **Gohfel'd, D. A.; et al., 80g:73002**
Šapiro, G. S. *See* **Reitman, M. I., 80g:73004**
(Šerman, D. I.) *See* **Parton, V. Z.; et al., 80a:73001**
Šnerenko, K. I. *See* **Guz', O. M.; et al., 80k:73002**
Solov'ev, Ju. I. *See* **Aleksandrov, A. Ja., 80f:73001**
(Stupak, S. F.) *See* **Parton, V. Z.; et al., 80a:73001**
Švec', R. M. *See* **Pidstrigač, Ja. S., 80d:73003**
Ulitko, A. F. ★Метод собственных векторных функций в пространственных задачах теории упругости. (Russian) [The method of eigenvector functions in three-dimensional problems of the theory of elasticity] **80h:73003**
Wang, Chao Chen ★Mathematical principles of mechanics and electromagnetism. Part A: Analytical and continuum mechanics. **80m:73001a**
★Mathematical principles of mechanics and electromagnetism. Part B: Electromagnetism and gravitation. **80m:73001b**
Elasticity *See* **Studies in elasticity and plasticity, 80d:73004**
Plasticity *See* **Studies in elasticity and plasticity, 80d:73004**
Studies in elasticity and plasticity ★Исследования по упругости и пластичности. Вып. 12. (Russian) [Studies in elasticity and plasticity. No. 12] **80d:73004**

Secondary classifications:

Baženov, V. A. *See* **Guljaev, V. I.; et al., (80e:73059)**
Guljaev, V. I. (*with* Baženov, V. A.; Lizunov, P. P.) ★Неклассическая теория оболочек и ее приложение к решению инженерных задач. (Russian) [Nonclassical shell theory and its application to the solution of engineering problems] **(80e:73059)**
Iljuhin, A. A. ★Пространственные задачи нелинейной теории упругих стержней. (Russian) [Three-dimensional problems of the nonlinear theory of elastic rods] **(80d:73081)**
Langenbach, Arno ★Monotone Potentialoperatoren in Theorie und Anwendung. **(80d:47081)**
Lizunov, P. P. *See* **Guljaev, V. I.; et al., (80e:73059)**

73–03 Historical (must also be assigned at least one classification number from Section 01)

Kardestuncer, H. Castigliano's contribution to matrix structural analysis. **80a:73002**

73–04 Explicit machine computation and programs (not the theory of computation or programming)

73–05 Experimental papers

73–06 Proceedings, conferences, etc.

(Achenbach, Jan D.) *See* **Modern problems in elastic wave propagation, 80d:73008**
(Fil'čakov, P. F.) *See* **Problems of continuum mechanics, 80d:73009**
(Il'julin, A. A.) *See* **Elasticity and inelasticity, 80d:73005**
(Maksudov, F. G.) *See* **Investigation of questions in the theory of elasticity and plasticity, 80b:73001**
(Medeiros, Luiz Adauto J.) *See* **Contemporary developments in continuum mechanics and partial differential equations, 80a:73003**
(Mikelsons, J.) *See* **Problems of electrodynamics and continuum mechanics, 80g:73005**
(Miklowitz, Julius) *See* **Modern problems in elastic wave propagation, 80d:73008**
(Ogibalov, P. M.) *See* **Elasticity and inelasticity, 80d:73005**
(de la Penha, Guilherme) *See* **Contemporary developments in continuum mechanics and partial differential equations, 80a:73003**
(Sedov, L. I.) *See* **Mechanics of solid deformable bodies, 80d:73006** *and* **Mechanics of solid deformable bodies, 80d:73007**
Baltimore, Md. *See* **Transactions: Conference of Army Mathematicians, 80m:73002**
Conference:
Army Mathematicians *See* **Transactions: Conference of Army Mathematicians, 80m:73002**
Contemporary developments in continuum mechanics and partial differential equations ★Contemporary developments in continuum mechanics and partial differential equations. **80a:73003**
Continuum mechanics *See* **Contemporary developments in continuum mechanics and partial differential equations, 80a:73003; Problems of continuum mechanics, 80d:73009** *and* **Problems of electrodynamics and continuum mechanics, 80g:73005**
Elasticity *See* **Investigation of questions in the theory of elasticity and plasticity, 80b:73001**
Elasticity and inelasticity ★Упругость и неупругость. Вып. 5. (Russian) [Elasticity and inelasticity. No. 5] **80d:73005**
Electrodynamics *See* **Problems of electrodynamics and continuum mechanics, 80g:73005**
Evanston, Ill. *See* **Modern problems in elastic wave propagation, 80d:73008**
Investigation of questions in the theory of elasticity and plasticity ★Исследование вопросов теории упругости и пластичности. Вып. 3. (Russian) [Investigation of questions in the theory of elasticity and plasticity. No. 3] **80b:73001**
Itogi Nauki i Tekniki *See* **Mechanics of solid deformable bodies, 80d:73006** *and* **Mechanics of solid deformable bodies, 80d:73007**
IUTAM Symposium:
Modern Problems in Elastic Wave Propagation *See* **Modern problems in elastic wave propagation, 80d:73008**
Mechanics of solid deformable bodies ★Механика деформируемого твердого тела. Том 11. (Russian) [Mechanics of a solid deformable body. Vol. 11] **80d:73006**
★Механика деформируемого твердого тела. Том 12. (Russian) [Mechanics of a solid deformable body. Vol. 12] **80d:73007**
Modern problems in elastic wave propagation ★Modern problems in elastic wave propagation. **80d:73008**
Partial differential equations *See* **Contemporary developments in continuum mechanics and partial differential equations, 80a:73003**
Plasticity *See* **Investigation of questions in the theory of elasticity and plasticity, 80b:73001**
Problems of continuum mechanics ★Некоторые задачи механики сплошных сред. (Russian) [Problems of continuum mechanics] **80d:73009**
Problems of electrodynamics and continuum mechanics ★Вопросы электродинамики и механики сплошных сред IV. (Russian) [Problems of electrodynamics and continuum mechanics. IV] **80g:73005**
Rio de Janeiro *See* **Contemporary developments in continuum mechanics and partial differential equations, 80a:73003**
Solid deformable bodies *See* **Mechanics of solid deformable bodies, 80d:73006** *and* **Mechanics of solid deformable bodies, 80d:73007**
Symposium:
Contemporary Developments in Continuum Mechanics and Partial Differential Equations *See* **Contemporary developments in continuum mechanics and partial differential equations, 80a:73003**
Transactions:
Conference of Army Mathematicians ★Transactions of the Twenty-fifth Conference of Army Mathematicians. **80m:73002**
Wave propagation *See* **Modern problems in elastic wave propagation, 80d:73008**

Secondary classifications:

(Bénilan, Philippe) *See* **Journées: Analyse Non Linéaire, (80a:46002)**
(Borkowski, Adam) *See* **Duality and complementarity in mechanics of solids, (80k:49001)**
(Knops, R. J.) *See* **Nonlinear analysis and mechanics: Heriot-Watt Symposium, (80d:00015)**

(Mamedov, R. G.) *See* Studies in some questions of the constructive theory of functions and differential equations, (80d:00021)
(Robert, Jacques) *See* Journées: Analyse Non Linéaire, (80a:46002)
(Whiteman, John Robert) *See* Mathematics of finite elements and applications, (80k:65005)
Besançon *See* Journées: Analyse Non Linéaire, (80a:46002)
Conference:
MAFELAP *See* Mathematics of finite elements and applications, (80k:65005)
Differential equations *See* Studies in some questions of the constructive theory of functions and differential equations, (80d:00021)
Duality and complementarity in mechanics of solids ★Duality and complementarity in mechanics of solids. (80k:49001)
Edinburgh *See* Nonlinear analysis and mechanics: Heriot-Watt Symposium, (80d:00015)
Finite elements *See* Mathematics of finite elements and applications, (80k:65005)
Jabłonna *See* Duality and complementarity in mechanics of solids, (80k:49001)
Journées:
Analyse Non Linéaire ★Journées d'analyse non linéaire. (80a:46002)
Mathematics of finite elements and applications ★The mathematics of finite elements and applications. III. (80k:65005)
Mechanics *See* Nonlinear analysis and mechanics: Heriot-Watt Symposium, (80d:00015)
Mechanics of deformable bodies *See* Duality and complementarity in mechanics of solids, (80k:49001)
Mechanics of solids *See* Duality and complementarity in mechanics of solids, (80k:49001)
Nonlinear analysis *See* Journées: Analyse Non Linéaire, (80a:46002)
Nonlinear analysis and mechanics: Heriot-Watt Symposium ★Nonlinear analysis and mechanics: Heriot-Watt Symposium. Vol. III. (80d:00015)
School-Conference:
Duality in Problems of the Mechanics of Deformable Bodies *See* Duality and complementarity in mechanics of solids, (80k:49001)
Studies in some questions of the constructive theory of functions and differential equations ★Исследования по некоторым вопросам конструктивной теории функций и дифференциальных уравнений. (Russian) [Studies in some questions of the constructive theory of functions and differential equations] (80d:00021)
Symposium:
Heriot-Watt, Nonlinear Analysis and Mechanics *See* Nonlinear analysis and mechanics: Heriot-Watt Symposium, (80d:00015)
Theory of functions *See* Studies in some questions of the constructive theory of functions and differential equations, (80d:00021)
Uxbridge *See* Mathematics of finite elements and applications, (80k:65005)

73A05 Axiomatics, foundations

Carlson, Donald E. On some new results in dimensional analysis. **80c:73001**
Hadryś, Henryk (*with* Mejbaum, Wacław) Basic properties of the dimensional modulus. (Russian summary) **80c:73002**
Mejbaum, Wacław *See* **Hadryś, Henryk, 80c:73002**
Rozin, L. A. ★Вариационные постановки задач для упругих систем. (Russian) [Variational formulations of problems for elastic systems] **80g:73006**

Secondary classifications:

Meiss, James D. (*with* Watson, Kenneth M.) Discussion of some weakly nonlinear systems in continuum mechanics. **(80d:73051)**
Sallé, Nikolaus Ein neues Verfahren zur Ableitung der Kompatibilitätsrelationen in der allgemein-relativistischen Elastomechanik. **(80a:83053)**
Watson, Kenneth M. *See* **Meiss, James D., (80d:73051)**

73Bxx Continuum mechanics {For fluids, see 76Axx.}

73B05 Constitutive equations

Atanacković, T. M. Homogeneous deformation process with minimal stress work. (German and Serbo-Croatian summaries) **80a:73004**
Bergander, H. Eine verallgemeinerte Darstellung inelastischer Deformationsgesetze zur Erleichterung der numerischen Lösung von Anfangs-Randwertproblemen. (Russian and English summaries) **80d:73010**
Boehler, Jean-Paul A simple derivation of representations for nonpolynomial constitutive equations in some case of anisotropy. (German and Russian summaries) **80f:73003**
Del Piero, Gianpietro Some properties of the set of fourth-order tensors, with application to elasticity. (Italian summary) **80k:73003**
Dikmen, Murat *See* **Erdem, A. Ünal, 80k:73004**
Erdem, A. Ünal (*with* Dikmen, Murat) Constitutive equations of nonlocal micromorphic elastic dielectrics. I. (Turkish summary) **80k:73004**
Fosdick, Roger L. (*with* Serrin, James) On the impossibility of linear Cauchy and Piola-Kirchhoff constitutive theories for stress in solids. **80f:73004**
Joseph, Daniel D. Constitutive equations and free surfaces. **80d:73011**
Kadašević, Ju. I. (*with* Novožilov, V. V.) Creep theory of micro-nonhomogeneous media. (Russian) **80h:73004**
Kiral, E. *See* **Smith, G. F., 80k:73005**
Kondaurov, V. I. (*with* Kukudžanov, V. N.) On constitutive equations and numerical solution of the multidimensional problems of the dynamics of nonisothermic elastic-plastic media with finite deformations. (Polish and Russian summaries) **80m:73003**
Krempl, E. *See* **Walker, K. P., 80d:73014**
Kukudžanov, V. N. *See* **Kondaurov, V. I., 80m:73003**
McNiven, Hugh D. (*with* Mengi, Yalcin) A mathematical model for the linear dynamic behavior of two phase periodic materials. **80g:73007**
Mengi, Yalcin *See* **McNiven, Hugh D., 80g:73007**
Mihăilescu-Suliciu, Mihaela (*with* Suliciu, Ion) Energy for hypoelastic constitutive equations. **80h:73005**
Murakami, Sumio (*with* Sawczuk, A.) On description of rate-independent behaviour for prestrained solids. (Polish and Russian summaries) **80j:73001**
Novožilov, V. V. *See* **Kadašević, Ju. I., 80h:73004**
Saccomandi, Emilia A new formulation of the theory of continua with director fields. (Italian summary) **80b:73002**
Sawczuk, A. *See* **Murakami, Sumio, 80j:73001**
Schnitzspan, H. Zur ebenen Deformation inkompressibler durch undehnbare Fasern verstärkter Materialien. **80f:73005**
Serrin, James *See* **Fosdick, Roger L., 80f:73004**
Šilhavý, Miroslav How many constitutive functions are necessary to determine a thermoelastic material? **80i:73002**
Smith, G. F. (*with* Kiral, E.) Anisotropic constitutive equations and Schur's lemma. **80k:73005**
Stouffer, D. C. (*with* Strauss, A. M.) A theory of material divagation. **80d:73012**
Strauss, A. M. *See* **Stouffer, D. C., 80d:73012**
Suliciu, Ion *See* **Mihăilescu-Suliciu, Mihaela, 80h:73005**
Tartar, L. Nonlinear constitutive relations and homogenization. **80d:73013**
Walker, K. P. (*with* Krempl, E.) An implicit functional theory of viscoplasticity. **80d:73014**
Wilmański, K. Localization problem of nonlocal continuum theories. (Polish and Russian summaries) **80h:73006**

Secondary classifications:

Bedford, Anthony (*with* Drumheller, Douglas S.) A variational theory of porous media. **(80m:76072)**
Bressan, Aldo ★Relativistic theories of materials. **(80d:83050)**
Drumheller, Douglas S. *See* **Bedford, Anthony, (80m:76072)**
Kluge, Reinhard (*with* Langmach, Hartmut) On the determination of some rheologic properties of mechanical media. **(80g:73039)**
Langmach, Hartmut *See* **Kluge, Reinhard, (80g:73039)**
Massa, Enrico Relative continuum mechanics in general relativity. II. The Lagrangian viewpoint. **(80m:83033)**
Murdoch, A. Ian Symmetry considerations for materials of second grade. **(80c:73005)**
Noll, Walter (*with* Schäffer, Juan Jorge) Corrigenda to the paper: "Orders, gauge, and distance in faceless linear cones: with examples relevant to continuum mechanics and relativity" (Arch. Rational Mech. Anal. **66** (1977), no. 4, 345–377). **(80h:06020)**
Sabbi, Sandra On some properties of Toupin-Rivlin media. (Italian) **(80a:78019)**
Schäffer, Juan Jorge *See* **Noll, Walter, (80h:06020)**
Spinedi, Carlo Die thermodynamischen Grundlagen der Kontinuumsmechanik (Vergleich zwischen verschiedenen Zugängen). (English summary) **(80c:80004)**

73B10 Isotropic functionals

Dost, S. (*with* Tabarrok, B.) Application of Hamilton's principle to large deformation and flow problems. **80c:73003**
Martins, L. C. (*with* Podio-Guidugli, Paolo) A new proof of the representation theorem for isotropic, linear constitutive relations. **80a:73005**
Podio-Guidugli, Paolo *See* **Martins, L. C., 80a:73005**
Tabarrok, B. *See* **Dost, S., 80c:73003**

73B15 Rotational groups [See also 22Exx.]

73B20 Simple materials

Sieniutycz, M. Damped conservation laws in continuum mechanics. **80g:73008**

Secondary classifications:

Lazzari, Barbara The existence of a potential for isothermic viscous fluids. (Italian. English summary) **(80e:80005)**
Rogulja, D. *See* **Zorski, G.; et al., (80j:70001)**
Rymaž, Č. *See* **Zorski, G.; et al., (80j:70001)**
Zorski, G. (*with* Rogulja, D.; Rymaž, Č.) Nonlocal continuum models of discrete systems. (Russian. English summary) **(80j:70001)**

73B25 Multipolar stress theory

Bressan, Sergio Integration of the elastostatic problem in the asymmetric case and with contact pairs. Application to the sheet problem. II. (Italian) **80e:73003**
Chaudhry, H. R. *See* **Chawla, K. B., 80j:73002**
Chawla, K. B. (*with* Chaudhry, H. R.) Solutions of some problems in linear theory of an elastic Cosserat plate. **80j:73002**
Chiriță, S. On the deformation of micropolar elastic almost cylindrical beams. **80d:73015**
Constanda, Christian The existence of the solution for the bending of micropolar elastic plates. (Italian) **80k:73006**
Crăciun, Ion Al. Half-space problem in micropolar thermoelasticity. (Russian summary) **80c:73004**
Dihamidilia, R. G. On the asymptotic distribution of the eigenfunctions of the first boundary value problem of oscillation in the moment theory of elasticity. (Russian. Georgian and English summaries) **80d:73016**
Dyszlewicz, Janusz Displacement functions for the second axially symmetric problem of micropolar elastostatics. (Polish. Russian and English summaries) **80d:73017**
Ghosh, B. C. *See* **Sengupta, P. R., 80c:73006** *and* **Sengupta, P. R., 80c:73007**
Giorgašvili, L. G. Effective solution of some plane boundary value problems of steady oscillations with account taken of stresses. (Russian. Georgian and English summaries) **80e:73004**
Ieşan, D. Deformation of composite Cosserat elastic cylinders. **80d:73018**
Jarić, J. Conservation laws of the J-integral type in micropolar elastostatics. **80m:73004**
Jarić, Jovo Lois de conservation du type intégrale J en élastostatique des milieux micropolaires. **80g:73009**

Matysiak, Stanisław A static two-dimensional crack problem in a linear Cosserat medium with free rotations. (Polish. Russian and English summaries) **80a:73006**
(*with* Olesiak, Zbigniew) Axially symmetric problems of Boussinesq type for a heated stamp on a micropolar half-space. (Polish. Russian and English summaries) **80h:73007**

Murdoch, A. Ian Symmetry considerations for materials of second grade. **80c:73005**

Natrošvili, D. G. The maximum principle in the moment theory of elasticity. (Russian) **80f:73003**
A general representation of the solution of a system of equations of the moment theory of elasticity and its application to the solution of dynamical problems. (Russian. Georgian and English summaries) **80e:73005**

Olesiak, Zbigniew *See* **Matysiak, Stanisław, 80h:73007**

Paukšto, M. V. The relation between deformation and stress in polycrystals. (Russian. English summary) **80d:73019**

Sengupta, P. R. (*with* Ghosh, B. C.) Solution of the source problem for a finite three-dimensional source in a micropolar elastic solid. (Russian summary) **80c:73006**
(*with* Ghosh, B. C.) Disturbance in a micropolar elastic half-space due to axially symmetric source of finite length. (Russian summary) **80c:73007**

Soós, Eugen Axiomatics and conservation laws in the theory of models of Cosserat type. (Romanian. English summary) **80a:73007**

Zaufir, Ştefan Betti-type formulas in multipolar linear elasticity. (Romanian. English summary) **80g:73010**

Secondary classifications:

Balagondar, P. M. *See* **Siddappa, B., (80g:76004)**

Rama Rao, K. V. Numerical solution of the thermal instability of a micropolar fluid layer between rigid boundaries. (German summary) **(80d:76083)**

Siddappa, B. (*with* Balagondar, P. M.) Flow due to a sudden stoppage of moving bodies in a Rivilin-Ericksen viscoelastic fluid. **(80g:76004)**

73B30 Thermodynamics of solids [See also 73U05; for gases and fluids, see 80–XX.]

Belleni-Morante, A. An integro-differential equation arising from the theory of heat conduction in rigid materials with memory. (Italian summary) **80c:73008**

Ciarletta, Michele (*with* Scalia, Antonio) Thermoelasticity of hereditary materials. (Italian. English summary) **80a:73008**

Dafermos, C. M. Hyperbolic balance laws in continuum physics. **80j:73003**
The second law of thermodynamics and stability. **80j:73004**

Fosdick, Roger L. On an inequality in thermodynamic stability. **80k:73007**

Karnaukhov, V. G. *See* **Senčenkov, I. K., 80f:73006**

Levitas, V. I. On the nonlinear theory of dissipative processes. (Russian. English summary) **80c:73009**

Podio-Guidugli, Paolo Elastic bodies in a Signorini-type environment. **80e:73006**

Scalia, Antonio *See* **Ciarletta, Michele, 80a:73008**

Senčenkov, I. K. (*with* Karnaukhov, V. G.) On the theory of integro-differential type media. (Russian. English summary) **80f:73006**

Secondary classifications:

Russel, William B. The low-shear limit of the effective viscosity of a solution of charged macromolecules. **(80h:76049)**

73B35 Random materials

Secondary classifications:

Bécus, Georges A. Wave propagation in imperfectly periodic structures: a random evolution approach. (French summary) **(80e:73022)**

73B99 None of the above, but in this section

Aleksandrov, V. M. (*with* Kovalenko, E. V.) Two effective methods of solving mixed linear problems of mechanics of continuous media. **80m:73005**

Antman, Stuart S. (*with* Osborn, John E.) The principle of virtual work and integral laws of motion. **80d:73020**

Aron, M. A continuous dependence result for a mixed boundary value problem in finite elastostatics. **80e:73007**

Banfi, Carlo (*with* Fabrizio, Mauro) On the state of a material element. (Italian. English summary) **80a:73009**

Belocerkovskiĭ, O. M. New numerical models in continuum mechanics. (Russian) **80d:73021**

Berdičevskiĭ, V. L. On averaging of periodic systems. **80e:73008**

Bovet, D. The continuous theory of dislocations in elastostatics and elastodynamics. **80d:73022**

Bowen, Ray M. On the effect of memory on the growth and decay of acceleration waves in a diffusing mixture with multiple temperatures. (Italian summary) **80b:73003**

Bugaenko, S. E. Conditions on the boundaries of discontinuities of the distortion tensor or its derivatives. **80h:73008**

Chen, Zhi Da Geometric field theory of finite deformations in continuum mechanics. (Chinese. English summary) **80e:73009**

Chowdhury, K. L. (*with* Glockner, P. G.) A group theoretic method for elastic dielectrics. **80j:73005**

Cowin, Stephen C. *See* **Nunziato, Jace W., 80k:73010**

Damamme, Gilles Minimum de la déformation généralisée d'un élément de matière, pour les chemins de déformation passant d'un état initial à un état final donnés. (English summary) **80k:73008**

Fabrizio, Mauro *See* **Banfi, Carlo, 80a:73009**

Fiskel'štein, R. M. *See* **Rodionov, A. F., 80f:73010** *and* **Rodionov, A. F., 80f:73011**

Glockner, P. G. *See* **Chowdhury, K. L., 80j:73005**

Green, A. E. (*with* Naghdi, P. M.) A note on invariance under superposed rigid body motions. **80f:73007**

Horodus, L. P. Methods of the theory of random functions in problems concerning macroscopic properties of micro-inhomogeneous media. (Russian) **80c:73010**

Ignaczak, Józef Tensorial equations of motion for a fluid saturated porous elastic solid. (Russian summary) **80d:73023**

James, Richard D. The propagation of phase boundaries in elastic bars. **80k:73009**

Knowles, James K. *See* **Sternberg, Eli, 80h:73010**

Kovalenko, E. V. *See* **Aleksandrov, V. M., 80m:73005**

Ladikov, Ju. P. ★Стабилизация процессов в сплошных средах. (Russian) [Stabilization of processes in complex media] **80e:73010**

Limarčenko, O. S. A variational principle for nonstationary multicomponent continual systems. (Russian) **80b:73004**

MacCamy, Richard C. Memory effects in one-dimensional problems of continuum mechanics. **80d:73024**

Marcinkowski, M. J. Unifying concepts in the theories of elasticity, plasticity, and dislocations. (German summary) **80g:73011**

Maugin, Gérard A. Nonlocal theories or gradient-type theories: a matter of convenience? (Polish and Russian summaries) **80f:73008**
The method of virtual power in continuum mechanics: application to coupled fields. (German summary) **80m:73006**

Michel, Bernd About inverse problems in continuum mechanics and solid state physics. **80f:73009**

Moden Žeraz, A. One-dimensional nonlinear motion in relativistic elasticity. (Russian) **80d:73025**

Naghdi, P. M. *See* **Green, A. E., 80f:73007**

Noll, Walter A general framework for problems in the statics of finite elasticity. **80d:73026**

Nunziato, Jace W. (*with* Cowin, Stephen C.) A nonlinear theory of elastic materials with voids. **80k:73010**

Osborn, John E. *See* **Antman, Stuart S., 80d:73020**

Pawlik, P. S. *See* **Reismann, H., 80g:73012**

Reismann, H. (*with* Pawlik, P. S.) Dynamics of initially stressed hyperelastic solids. (German and Russian summaries) **80g:73012**

Rieder, Georg On Kupradze's generalized stress, its physical meaning and its application to certain integral operators of plane elasticity. (Russian summary) **80a:73010**

Rodionov, A. F. (*with* Finkel'štein, R. M.) The foundations of the relativistic theory of elasticity. (Russian) **80f:73010**
(*with* Finkel'štein, R. M.) Deduction of the laws of conservation of momentum and energy of relativistic continua by means of the variational principle. (Russian) **80f:73011**

Rogula, Dominik (*with* Sztyren, Małgorzata) Fundamental one-dimensional solutions in nonlocal elasticity. **80h:73009**
Geometrical and dynamical nonlocality. (Polish and Russian summaries) **80i:73004**

Sternberg, Eli (*with* Knowles, James K.) On the existence of an elastic potential for a simple material without memory. **80h:73010**

Sztyren, Małgorzata *See* **Rogula, Dominik, 80h:73009**

Wang, Chao Chen Quasistatic controllable processes of incompressible isotropic homogeneous anelastic material bodies. **80e:73011**

Williams, W. O. On stresses in mixtures. **80k:73011**

Secondary classifications:

Dikmen, Murat *See* **Erdem, A. Ünal, (80k:78008)** *and* **Erdem, A. Ünal, (80k:78009)**

Erdem, A. Ünal (*with* Dikmen, Murat) Nonlocal electromagnetic interactions in micromorphic dielectric solids. (Turkish summary) **(80k:78008)**
(*with* Dikmen, Murat) Balance laws of electromagnetism in micromorphic continua subject to nonlocal interactions. (Turkish summary) **(80k:78009)**

Fetecău, C. An uniqueness theorem in the linear theory of heat conducting with memory. (Romanian summary) **(80k:45014)**

Maugin, Gérard A. Théorie et applications de l'élasticité en relativité générale. (English and Serbo-Croatian summaries) **(80f:83037)**

Nogi, Tatsuo (*with* Ohwaki, Hiroshi) A consolidation problem and its solution. **(80d:73114)**

Ohwaki, Hiroshi *See* **Nogi, Tatsuo, (80d:73114)**

Sedov, L. I. On a natural theory of continuous media. **(80f:83013)**

Spinelli, Giancarlo The second cardinal equation of dynamics for continua in special relativity. (Italian and Russian summaries) **(80k:83003)**

73Cxx Elasticity {For the biharmonic equation, see 31A30, 31B30; for acoustics, see 76Q05.}

Secondary classifications:

Bettess, P. *See* **Zienkiewicz, O. C.; et al., (80e:65107)**

Caffarelli, Luis A. (*with* Friedman, Avner) The free boundary for elastic-plastic torsion problems. **(80f:35059)**

Friedman, Avner *See* **Caffarelli, Luis A., (80f:35059)**

Kelly, D. W. *See* **Zienkiewicz, O. C.; et al., (80e:65107)**

Murat, François Compacité par compensation. II. **(80h:46043b)**

Ulitko, A. F. ★Метод собственных векторных функций в пространственных задачах теории упругости. (Russian) [The method of eigenvector functions in three-dimensional problems of the theory of elasticity] **(80k:73003)**

Zienkiewicz, O. C. (*with* Kelly, D. W.; Bettess, P.) Marriage à la mode—the best of both worlds (finite elements and boundary integrals). **(80e:65107)**

73C02 Classical linear elasticity

73C03 Complex variable techniques

73C05 Stress functions

Andriankin, È. I. (*with* Kononenko, M. M.) The solution of a biharmonic problem for an elastic cylinder. (Russian) **80b:73011**

Buryïkin, M. L. The Kolosov-Muskelišvili functions in generalized symmetric problems of elasticity theory. (Russian. English summary) **80j:73006**

Caffarelli, Luis A. (*with* Rivière, Nestor M.) The Lipschitz character of the stress tensor, when twisting an elastic plastic bar. **80d:73027**

Constantinescu, Ilie N. The use of the theory of distributions for an investigation of force fields. (Russian. Armenian and English summaries) **80c:73011**

Kononenko, M. M. *See* **Andriankin, È. I., 80b:73011**

Muhammed, Ibragim èl' Taher Muhammed Pure bending of an infinite strip with an elliptic aperture. (Russian. Azerbaijani and English summaries) **80a:73011**

Rivière, Nestor M. *See* **Caffarelli, Luis A., 80d:73027**

Rosser, J. Barkley Majorization formulas for a biharmonic function of two variables. **80f:73012**

Rostamian, Rouben The completeness of Maxwell's stress function representation. (French summary) **80k:73012**

Secondary classifications:

Capurso, Michele Stress components and deformation components in the Saint-Venant solid. (Italian) **(80g:73044)**

Cvik, L. B. The principle of alternating continuity in solving by parts the problems of field theory. (Russian) **(80j:65037)**

73C10 Saint-Venant's principle

Chiriță, S. Saint-Venant's problem for nonlocal elastic solids. **80c:73012**

Ericksen, J. L. On the status of St.-Venant's solutions as minimizers of energy. **80m:73007**

Fichera, Gaetano Remarks on Saint-Venant's principle. (Russian summary) **80e:73012**

Iosif'jan, G. A. *See* **Oleĭnik, O. A., 80g:73013a** *and* **Oleĭnik, O. A., 80g:73013b**

Kączkowski, Zbigniew Some remarks on: "Kinematic equivalence of systems of forces" (Mech. Teoret. Stos. **16** (1978), no. 1, 71–79) by Stefan Piechnik. (Polish) **80a:73012a**
See also **Piechnik, Stefan, 80a:73012b**

Oleĭnik, O. A. (*with* Iosif'jan, G. A.) A mixed problem for a system of equations of elasticity theory and Saint-Venant's principle. (Russian) **80g:73013b**
(*with* Iosif'jan, G. A.) Saint-Venant's principle in the plane theory of elasticity, and boundary value problems for a biharmonic equation in unbounded domains. (Russian) **80g:73013a**

Parker, D. F. The role of Saint-Venant's solutions in rod and beam theories. **80f:73005**

Piechnik, Stefan A reply to: "Some remarks on: 'Kinematic equivalence of systems of forces' (Mech. Teoret. Stos. **16** (1978), no. 3, 407–409)" by Zbigniew Kączkowski. (Polish) **80a:73012b**
See also **Kączkowski, Zbigniew, 80a:73012a**

73C15 Uniqueness theorems

Mukherjee, Deepankar Some uniqueness theorems in the theory of elasticity. **80c:73013**

Wilcox, Calvin H. Uniqueness theorems for displacement fields with locally finite energy in linear elastostatics. **80m:73008**

Secondary classifications:

Clarlet, Philippe G. (*with* Destuynder, Philippe) Approximation of three-dimensional models by two-dimensional models in plate theory. **(80f:73041)**

Destuynder, Philippe *See* **Clarlet, Philippe G., (80f:73041)**

73C20 Strain energy methods

Adamov, V. I. (*with* Taras'ev, G. S.; Teličko, G. N.) A variational method for the construction of models of thin rods. (Russian) **80b:73005**

Hu, Hai Chang Energy methods and local effects. (Chinese. English summary) **80m:73009**

Taras'ev, G. S. *See* **Adamov, V. I.; et al., 80b:73005**

Teličko, G. N. *See* **Adamov, V. I.; et al., 80b:73005**

73C25 Thermal stress problems

Crîcîun, Ion Al. Axial-symmetric problems in micropolar thermoelasticity. **80f:73013**

Dragoș, Lazăr Fundamental solutions in thermoelasticity. **80f:73014**

73C30 Anisotropic bodies

Al'tiuler, G. V. *See* **Sačenkov, A. V., 80b:73015**

Bancuri, R. D. The first fundamental problem for a piecewise homogeneous orthotropic plane with a cut perpendicular to the line of interface. (Russian. Georgian and English summaries) **80d:73028**

Cai, Hai Tao The first and second periodic fundamental problems of a semi-infinite medium with anisotropic elasticity. (Chinese. English summary) **80h:73012**

Calladine, C. R. (*with* Greenwood, J. A.) Line and point loads on a non-homogeneous incompressible elastic half-space. **80b:73006**

Chiriță, S. Saint-Venant's problem for anisotropic circular cylinders. **80m:73010**

Dahan, Marc (*with* Predeleanu, Mircea) Solutions fondamentales dans la théorie de l'élasticité aéolotrope pour un milieu semi-infini. (English summary) **80b:73013**

Greenwood, J. A. *See* **Calladine, C. R., 80b:73006**

Head, A. K. The Galois unsolvability of the sextic equation of anisotropic elasticity. **80c:73014**

Krenk, Steen Stress concentration around holes in anisotropic sheets. **80b:73007**

Lardner, R. W. (*with* Tupholme, G. E.) An indenter moving on an anisotropic elastic half-space. **80d:73029**

Lazarev, M. I. Solution of basic problems of the theory of elasticity of an anisotropic medium by the potential method. (Russian) **80h:73014**

Maugin, Gérard A. Théorie des rayons en élasticité relativiste anisotrope. (English summary) **80m:73011**

Predeleanu, Mircea *See* **Dahan, Marc, 80b:73013**

Rusu, Gh. Theory of loaded Cosserat elastic cylinders. **80e:73015**

Sačenkov, A. V. (*with* Al'tiuler, G. V.) Solution of a three-dimensional problem of elasticity theory for a transversally isotropic layer. II. (Russian) **80h:73015**

Tupholme, G. E. *See* **Lardner, R. W., 80d:73029**

Vorovič, I. I. Spectral properties of a boundary value problem of elasticity theory for a nonuniform band. (Russian) **80h:73016**

Secondary classifications:

Baničuk, N. V. An extremum problem for a system with distributed parameters and determination of the optimal properties of an elastic medium. (Russian) **(80a:49033)**

Barry, P. A. (*with* Musgrave, M. J. P.) On elliptical conical refraction of elastic waves in tetragonal media. **(80k:73019)**

Hubbard, Mont Whirl dynamics of pendulous flywheels using bond graphs. **(80g:70004)**

Lions, Jacques-Louis A remark on certain computational aspects of the homogenization method in composite materials. (Russian) **(80h:35026)**

Musgrave, M. J. P. *See* **Barry, P. A., (80k:73019)**

73C35 Mixed boundary value problems [See also 45F05.]

Aleksandrov, V. M. (*with* Zelencov, V. B.) The method of homogeneous solutions in mixed problems of pure shear. (Russian. Armenian and English summaries) **80f:73006**

Alekseev, A. E. A method of computing an upper bound for the strength of external surface forces in the deformation of a medium with tangential stresses of bounded magnitude. (Russian) **80f:73015**

Bancuri, R. D. Solution of the third basic problem of elasticity theory for doubly connected domains with polygonal boundary. (Russian) **80e:73013**

Dhawan, G. K. The distribution of stress in the vicinity of an external crack in a semi-infinite solid. **80j:73007**

Gol'dštein, R. V. Application of integral equations to the numerical solution of problems in elasticity and plasticity theory. (Russian) **80g:73014**

Golecki, J. J. Displacement potentials and corresponding stress functions in two-dimensional problems of elasticity (theory and applications). **80f:73007**

Heise, U. Condition of a functional equation for the static boundary value problem of plane elastostatics. **80f:73008**

Hünlich, Rolf (*with* Naumann, Joachim) On general boundary value problems and duality in linear elasticity. I. (Czech and Russian summaries) **80e:73014**

Hzardžjan, S. M. Stressed state of an elastic prismatic solid with a free or rigidly attached lateral surface. **80h:73017**

Lai, Mange Axisymmetric mixed boundary value problem of a circular hole in an elastic solid. **80j:73008**

Malti, M. (*with* Palit, S. S.) On the formulation of plane problems of elasticity in terms of dislocation layers. (Polish and Russian summaries) **80k:73013**

Mandal, Birendranath Torsion of a paraboloid of revolution with mixed boundary conditions. **80d:73030**

Naumann, Joachim *See* **Hünlich, Rolf, 80e:73014**

Nazarov, S. A. The smoothing of singularities of the boundary in two-dimensional problems of the theory of elasticity. (Russian) **80g:73015**

Palit, S. S. *See* **Malti, M., 80k:73013**

Selvadurai, A. P. S. The interaction between a rigid circular punch on an elastic halfspace and a Mindlin force. **80c:73016**

Vatul'jan, A. O. Contact problem with adhesion for an anisotropic layer. **80a:73013**

Zelencov, V. B. *See* **Aleksandrov, V. M., 80f:73006**

Secondary classifications:

Ponomarenko, S. P. The solution of a class of triple integral equations associated with the integral Hankel transformation. (Russian) **(80c:45008)**

Theocaris, Pericles S. *See* **Tsamasphyros, G. J., (80e:35020)**

Tsamasphyros, G. J. (*with* Theocaris, Pericles S.) A general bi-orthogonality condition: application to plane elasticity problems. **(80e:35020)**

73C40 Nonhomogeneous bodies and inclusions

Bécus, Georges A. Homogenization and random evolutions: applications to the mechanics of composite materials. **80g:73016**

Clements, D. L. *See* **Rogers, C., 80e:73017**

Džagmaidze, A. Ja. *See* **Natroïvili, D. G., 80b:73008**

Fleury, Françoise (*with* Paşa, Gelpy; Polişevshi, Dan) Homogénéisation de corps composites sous l'action de forces de grande fréquence spatiale. (English summary) **80k:73014**

Kolpakov, A. G. Effect of nonuniformities on the stress-deformed state and strength of a unidirectional composite. (Russian) **80e:73015**

Kuang, Zhen Bang Stress analysis for plane curved polygonal defects containing cusps only. (Chinese. English summary) **80e:73016a**
Corrections to: "Stress analysis for plane curved polygonal defects containing cusps only" [Acta Mech. Sinica (Peking) 1979, no. 2, 118–128; MR 80e:73016] (Chinese) **80e:73016b**

Natroïvili, D. G. (*with* Džagmaidze, A. Ja.) ★Динамические задачи классической теории упругости для кусочно-однородных тел. (Russian) [Dynamical problems of the classical theory of elasticity for piecewise homogeneous bodies] **80b:73008**

Paşa, Gelpy *See* **Fleury, Françoise; et al., 80k:73014**

Polişevshi, Dan *See* **Fleury, Françoise; et al., 80k:73014**

Rogers, C. (*with* Clements, D. L.) Bergman's integral operator method in inhomogeneous elasticity. **80e:73017**

Šul'ga, M. O. Thermoelastic surface waves in a regularly layered half-space. (Russian. English summary) **80g:73017**

Secondary classifications:

Greenspan, Donald *See* **LaBudde, Robert A., (80e:70018)**
LaBudde, Robert A. (*with* Greenspan, Donald) Discrete mechanics for anisotropic potentials. **(80e:70018)**
Lions, Jacques-Louis *Remarques sur les aspects numériques de la méthode* d'homogénéisation dans les matériaux composites. **(80b:35135)**
Rusu, Gh. Theory of loaded Cosserat elastic cylinders. **(80e:73015)**

73C45 Stress concentrations

Dempsey, J. P. (*with* Sinclair, G. B.) On the stress singularities in the plane elasticity of the composite wedge. (French summary) **80k:73015**
Heise, U. Application of the singularity method for the formulation of plane elastostatical boundary value problems as integral equations. **80d:73031**
Ioakimidis, Nikolaos I. (*with* Theocaris, Pericles S.) Numerical determination of a class of generalized stress intensity factors. **80f:73016**
See also **Theocaris, Pericles S., 80e:73017**
Meunargija, T. V. Solution of certain problems of the concentration of stresses for anisotropic plates. (Russian) **80a:73014**
Poddar, S. N. Stress intensity factors for two coplanar Griffith cracks in an infinitely long elastic strip, perpendicular to the edges of the strip, for any variable distribution of pressure. **80b:73009**
Sinclair, G. B. *See* **Dempsey, J. P., 80k:73015**
Theocaris, Pericles S. On the singular stress field at a multiwedge corner. **80a:73015**
(*with* Ioakimidis, Nikolaos I.) The V-notched elastic half-plane problem. (German summary) **80c:73017**
Erratum: "Stress and displacement singularities near corners" [Z. Angew. Math. Phys. **26** (1975), no. 1, 77–98; MR **53** #15058]. **80f:73009**
See also **Ioakimidis, Nikolaos I., 80f:73016**

Secondary classifications:

Maiti, M. (*with* Palit, S. S.) On the formulation of plane problems of elasticity in terms of dislocation layers. (Polish and Russian summaries) **(80k:73013)**
Palit, S. S. *See* **Maiti, M., (80k:73013)**

73C50 Nonlinear elasticity

Antman, Stuart S. A family of semi-inverse problems of nonlinear elasticity. **80d:73032**
Ball, J. M. (*with* Knops, R. J.; Marsden, Jerrold E.) Two examples in nonlinear elasticity. **80d:73033**
Capriz, G. On the branching of solutions and Signorini's perturbation procedure in elasticity. **80f:73017**
Clarlet, Philippe G. Une justification des équations de von Kármán. (English summary) **80i:73010**
Ciechanowicz-Halka, Barbara Ein nicht-lineares Randproblem der flachen Elastizitättheorie. **80d:73034**
Fujii, Hiroshi *See* **Yamaguti, Masaya, 80m:73012**
Gagnepain, Jean-Jacques *See* **Theobald, Geneviève, 80a:73016**
Gurtin, Morton E. On the nonlinear theory of elasticity. **80d:73035**
Gurvič, E. L. Hadamard conditions in nonlinear elasticity. **80i:73011**
Guz', O. M. The stability of elastic bodies at omnilateral uniform compression. (Russian) **80e:73018**
Haughton, D. M. (*with* Ogden, R. W.) Bifurcation of rotating circular cylindrical elastic membranes. **80j:73009**
James, Richard D. Co-existent phases in the one-dimensional static theory of elastic bars. **80k:73016**
Knops, R. J. *See* **Ball, J. M.; et al., 80d:73033**
Labisch, F. Lokale Fehlerschranken für Randwertprobleme der nichtlinearen Elastizitätstheorie. **80b:73010**
Marsden, Jerrold E. *See* **Ball, J. M.; et al., 80d:73033**
Oden, J. Tinsley Existence theorems for a class of problems in nonlinear elasticity. **80e:73019**
(*with* Reddy, C. T.) Finite element approximations of a class of highly nonlinear boundary-value problems in finite elasticity. **80d:73036**
Ogden, R. W. *See* **Haughton, D. M., 80j:73009**
Parry, Gareth P. On the comparison of stability criteria in anisotropic materials. **80k:73017**
Reddy, C. T. *See* **Oden, J. Tinsley, 80d:73036**
Stumpf, Helmut Some applications of convex analysis to non-linear elastic boundary value problems. (Russian summary) **80d:73037**
Dual extremum principles and error bounds in non-linear elasticity theory. (German summary) **80b:73011**
Theobald, Geneviève (*with* Gagnepain, Jean-Jacques) Propagation d'une onde élastique dans un milieu anisotrope perturbé. (English summary) **80a:73016**
Yamaguti, Masaya (*with* Fujii, Hiroshi) On numerical deformation of singularities in nonlinear elasticity. **80m:73012**
Zachmann, David W. Nonlinear analysis of a twisted axially loaded elastic rod. **80f:73018**

Secondary classifications:

Biancardi, Mirella (*with* Toscano, Raffaele) The regularity of the solution to a variational inequality. (Italian. English summary) **(80m:35016)**
(Kaiser, Gerald) *See* **Geometric methods in mathematical physics, (80g:83001)**
List, Stephen E. Generic bifurcation with application to the von Kármán equations. **(80e:58013)**
(Marsden, Jerrold E.) *See* **Geometric methods in mathematical physics, (80g:83001)**
Miersemann, Erich Über höhere Verzweigungspunkte nichtlinearer Variationsungleichungen. **(80e:58014)**
Toscano, Raffaele *See* **Biancardi, Mirella, (80m:35016)**
Conference:
NSF-CBMS, Geometric Methods in Mathematical Physics *See* **Geometric methods in mathematical physics, (80g:83001)**
Geometric methods in mathematical physics ★Geometric methods in mathematical physics. **(80g:83001)**
Lowell, Mass. *See* **Geometric methods in mathematical physics, (80g:83001)**
Mathematical physics *See* **Geometric methods in mathematical physics, (80g:83001)**

73C99 None of the above, but in this section

Axelsson, Owe (*with* Gustafsson, Ivar) Iterative methods for the solution of the Navier equations of elasticity. **80c:73018**
Bagishaev, K. N. Numerical solution of the Aleksandrov-Solov'ev integral equations for axially symmetric problems of elasticity theory. (Russian) **80a:73017**
Banichuk, N. V. Optimality conditions in the problem of seeking the hole shapes in elastic bodies. **80i:73012**
Barta, J. Survey of some variational theorems in elastostatics. (German and Russian summaries) **80i:73013**
Benthem, J. P. On an inversion theorem for conical regions in elasticity theory. (German summary) **80f:73019**
Bugrov, A. N. Substantiation of the imaginary domain method for finite-difference approximations of planar static problems of elasticity theory. (Russian) **80f:73020**
Castellani Rizzonelli, Pieranita The computation of the eigenfrequencies of an elastic body with a free boundary and with discontinuous elastic coefficients. (Italian. English summary) **80c:73021**
Clément, Philippe *See* **Kolter, W. T., 80j:73011**
Constanda, Christian Some comments on the integration of certain systems of partial differential equations in continuum mechanics. (French summary) **80k:73018**
Darwish, D. M. A representation for general solutions in the theory of elasticity. **80m:73013**
Day, W. A. L^p-estimates for static stress fields. **80f:73021**
Delei, V. I. *See* **Lenjuk, M. P., 80c:73019**
Dragoș, Lazăr New derivations of the solutions determined by concentrated loads in two- and three-dimensional linear elasticity. **80f:73022**
Giorgašvili, L. G. The solution of basic boundary value problems of statics in the moment theory of elasticity for the sphere. (Russian. Georgian and English summaries) **80g:73018**
Gregory, R. D. Green's functions, bi-linear forms, and completeness of the eigenfunctions for the elastostatic strip and wedge. **80j:73010**
Guilk, B. I. (*with* Kosmodamians'kil, O. S.) Pure shift of a half-space with a cylindrical cavity. (Russian) **80f:73023**
Gustafsson, Ivar *See* **Axelsson, Owe, 80c:73018**
Harltos, G. K. (*with* Keer, L. M.) Stress analysis for an elastic half space containing an embedded rigid block. **80f:73014**
Hutorjanskil, N. M. On the solution of some three- and two-dimensional problems of optimization of the shape of elastic bodies. (Russian) **80f:73024**
Ibragimov, V. A. An application of the theory of generalized analytic functions. (Russian) **80d:73038**
Kapilvil, O. O. (*with* Stojan, N. M.) An axially symmetric problem for an elastic space with two symmetric hyperboloid cuts. (Russian. English summary) **80f:73025**
Kazantzakis, J. G. (*with* Theocaris, Pericles S.) The evaluation of certain two-dimensional singular integrals used in three-dimensional elasticity. **80b:73012**
Keer, L. M. *See* **Harltos, G. K., 80f:73014**
Knothe, K. Ein Beitrag zur Systematisierung von Variationsprinzipien der Elastizitätstheorie und zu ihrer Verwendbarkeit für Finite-Element-Verfahren. (English and Russian summaries) **80a:73018**
Kolter, W. T. (*with* Clément, Philippe) On the so-called comparison theorem in the linear theory of elasticity. (German summary) **80j:73011**
Kosovalov, A. N. Les problèmes de la théorie de l'élasticité en formulation aux contraintes. **80i:73015**
Problems of elasticity theory in terms of stresses. (Russian) **80k:73019**
Kosmodamians'kil, O. S. *See* **Guilk, B. I., 80f:73023**
Kuznecov, E. N. Application of automorphic functions in two-dimensional theory of elasticity. **80j:73012**
Ladevèze, J. (*with* Ladevèze, P.; Mantion, M.; Pécastaings, F.; Pelle, J.-P.) Sur les fondements de la théorie linéaire des poutres élastiques. I. Méthode. Construction du prolongement admissible optimal. (English summary) **80m:73014**
Ladevèze, P. *See* **Ladevèze, J.; et al., 80m:73014**
Lenjuk, M. P. (*with* Delei, V. I.) The two-dimensional first dynamical problem of elasticity theory for a half-plane. (Russian) **80c:73019**
Mantion, M. *See* **Ladevèze, J.; et al., 80m:73014**
Martynenko, Mik. D. (*with* Multenko, V. S.) A boundary value problem for the Lamé system in a space with a smooth slit. (Russian. English summary) **80c:73020**
Molčanov, I. M. ★Численные методы решения некоторых задач теории упругости. (Russian) [Numerical methods of solving some problems of elasticity theory] **80k:73020**
Multenko, V. S. *See* **Martynenko, Mik. D., 80c:73020**
Natrošvili, D. G. ★Оценки тензоров Грина теории упругости и некоторые их приложения. (Russian) [Estimates of Green's tensors of elasticity theory and their applications] **80a:73019**
Obolašvili, E. I. Some generalizations of two-dimensional problems of elasticity theory. (Russian) **80a:73020**
Padva, I. G. *See* **Zevin, A. A., 80f:73026**
Pécastaings, F. *See* **Ladevèze, J.; et al., 80m:73014**
Pelle, J.-P. *See* **Ladevèze, J.; et al., 80m:73014**
Podil'čuk, Ju. N. ★Трехмерные задачи теории упругости. (Russian)

[Three-dimensional problems of elasticity theory] **80h:73021**

Ramachandra Rao, B. S. *See* **Singhal, A. K., 80j:73014**

Rektorys, Karel The method of least squares on the boundary and very weak solutions of the first biharmonic problem. **80h:73022**

Rigolot, Christiane Potentiel élastique sur une surface non régulière. (English summary) **80a:73021**

Schurle, P. An example for constructing the variational (energetic) error principle. (German and Russian summaries) **80j:73013**

Singhal, A. K. (*with* Ramachandra Rao, B. S.) A note on an orthogonality relation for stress analysis in a multilayered laminated disc. **80j:73014**

Štípl, M. On the maximum principle in the linear theory of elasticity. (Russian and Czech summaries) **80a:73022**

Stojan, N. M. *See* **Kapilvli, O. O., 80f:73025**

Theocaris, Pericles S. *See* **Kazantzakis, J. G., 80b:73012**

Vigdergauz, S. B. On a case of the inverse problem of the two-dimensional theory of elasticity. **80g:73019**

Wheeler, L. On optimum profiles for the minimization of elastic stress concentration. **80d:73039**

Zevin, A. A. (*with* Padva, I. G.) Inversion of the Laplace transform in problems of hereditary elasticity theory. (Russian. Armenian and English summaries) **80f:73026**

Zorii, L. M. On the application of generalized functions in analytic methods of investigation of complex elastic systems. (Russian. English summary) **80c:73022**

Secondary classifications:

Arseni, V. F. (*with* Evseev, E. G.; Hubedžaĭvili, Š. S.) ★К приближенному решению граничных задач со сдвигом. (Russian) [On the approximate solution of boundary value problems with a shift] **(80f:30036)**

Axelsson, Owe (*with* Munksgaard, Niels) A class of preconditioned conjugate gradient methods for the solution of a mixed finite element discretization of the biharmonic operator. **(80l:65111)**

Bandle, Catherine On isoperimetric gradient bounds for Poisson problems and problems of torsional creep. (German summary) **(80l:49005)**

Basu, A. Some boundary value problems in magneto-elastodynamics. **(80e:73045)**

Bedding, R. J. (*with* Willis, J. R.) The elastodynamic Green's tensor for a half-space with an embedded anisotropic layer. **(80m:73027)**

Best, Michael J. (*with* McFall, Nancy A.) The projection method of optimization applied to engineering plasticity problems. **(80h:90160)**

Bickford, William B. Lower bounds to eigenvalues of piecewise continuous elastic systems. (German summary) **(80f:49027)**

Buffler, H. Generalized variational principles with relaxed continuity requirements for certain nonlinear problems, with an application to nonlinear elasticity. **(80e:49038)**

Clements, D. L. (*with* King, G. W.) A method for the numerical solution of problems governed by elliptic systems in the cut plane. **(80d:65128)**

Evseev, E. G. *See* **Arseni, V. F.; et al., (80f:30036)**

Fraser, W. B. Orthogonality of the elastodynamic eigenfunctions for a cylinder of arbitrary cross-section. **(80m:73028)**

Ghosh, B. C. *See* **Sengupta, P. R., (80c:73007)**

Horgan, C. O. (*with* Olmstead, W. E.) Exponential decay estimates for a class of nonlinear Dirichlet problems. **(80l:35078)**

Hubedžaĭvili, Š. S. *See* **Arseni, V. F.; et al., (80f:30036)**

Hutzler, D. (*with* Planchard, J.) La méthode de Wittrick et Williams pour calculer les fréquences propres des structures élastiques. Application aux structures répétitives. (English summary) **(80e:73052)**

(Hvedelidze, B. V.) *See* **Singular integrals, integral equations and their applications, (80l:45001)**

King, G. W. *See* **Clements, D. L., (80d:65128)**

McFall, Nancy A. *See* **Best, Michael J., (80h:90160)**

Mel'nikova, O. F. (*with* Poljahov, N. N.) Construction of the initial approximation for the solution of the lifting surface integral equation. (Russian. English summary) **(80c:65250)**

Mercier, Bertrand A conforming finite element method for two-dimensional incompressible elasticity. **(80c:65208)**

Munksgaard, Niels *See* **Axelsson, Owe, (80l:65111)**

Muĭtenko, V. S. Fundamental solution of a biharmonic equation in a Riemann space. (Russian) **(80a:31008)**

Nohel, John A. A nonlinear singularly perturbed Volterra functional differential equation. **(80l:45020)**

Olmstead, W. E. *See* **Horgan, C. O., (80l:35078)**

Planchard, J. *See* **Hutzler, D., (80e:73052)**

Poljahov, N. N. *See* **Mel'nikova, O. F., (80c:65250)**

Ponomarenko, S. P. A system of dual integral equations connected with the Mehler-Fok generalized integral transform. (Russian. English summary) **(80m:45007)**

Romančík, V. S. The numerical solution of some integral equations of the first kind. (Russian) **(80b:65158)**

Samedov, N. I. A boundary value problem for a fourth-order quasilinear degenerate equation of composite type. (Russian) **(80f:35086)**

Sengupta, P. R. (*with* Ghosh, B. C.) Disturbance in a micropolar elastic half-space due to axially symmetric source of finite length. (Russian summary) **(80c:73007)**

Senichkin, Ju. È. Finite integral transformations in problems of the dynamics of elastic and viscoelastic systems. (Russian. Bulgarian and English summaries) **(80d:73061)**

Villaggio, Piero An elastic theory of Coulomb friction. **(80l:73068)**

Willis, J. R. *See* **Bedding, R. J., (80m:73027)**

Integral equations *See* **Singular integrals, integral equations and their applications, (80l:45001)**

Singular integrals, integral equations and their applications ★Сингулярные интегралы, интегральные уравнения и их приложения. (Russian) [Singular integrals, integral equations and their applications] **(80l:45001)**

73Dxx Wave propagation in and vibrations of solids

73D05 Impact and explosion problems [See also 76L05.]

Gaiduk, S. I. Some mixed problems related to the longitudinal striking of nonhomogeneous rods. (Russian) **80d:73040**

Il'jasov, M. H. Longitudinal impact along viscoelastic rods. (Russian) **80f:73027**

Miklowitz, Julius *See* **Sve, C., 80h:73023**

Rossikin, Ju. A. The impact of a thermoelastic rod against a heated barrier. (Russian) **80c:73023**

Sve, C. (*with* Miklowitz, Julius) Lamb's problem for an impulsive line load on a laminated composite. **80h:73023**

Vorovič, I. I. Resonance properties of an elastic inhomogeneous band. (Russian) **80h:73024**

Secondary classifications:

Nolet, G. *See* **Vlaar, N. J., (80f:86003)**

Vlaar, N. J. (*with* Nolet, G.) Seismic surface waves. **(80f:86003)**

73D10 Integral transforms

Abramovici, Flavian A generalization of the Cagniard method. **80a:73023**

Bhattacharya, S. *See* **De, S. K., 80k:73018**

De, S. K. (*with* Bhattacharya, S.) Propagation of waves in a composite semi-infinite rod. **80k:73018**

Jílek, Miroslav The transients propagation in a conical bar treated by Rayleigh's correction. **80b:73013**

Ungar, Abraham The differential transform technique for solving problems of wave propagation. **80h:73025**

73D15 Dilatational and shear waves

Barry, P. A. (*with* Musgrave, M. J. P.) On elliptical conical refraction of elastic waves in tetragonal media. **80k:73019**

Dassios, George Equipartition of energy in elastic wave propagation. **80c:73024**

Debnath, Lokenath *See* **Pal, P. C., 80m:73017**

Gangi, Anthony F. (*with* Wesson, Robert L.) *P*-wave to Rayleigh-wave conversion coefficients for wedge corners; model experiments. **80g:73020**

Gérard, Alain Champ résultant de l'incidence d'ondes P et SV sur un milieu stratifié à symétrie sphérique. (English summary) **80m:73015**

Ghosh, S. K. On the transient disturbance produced by a finite, spherical source in an infinite, elastic cylinder. **80m:73016**

Grinfel'd, M. A. Reflection-refraction of wave fronts on the boundary of nonlinearly elastic media. **80f:73028**

Mainardi, F. (*with* Servizi, G.; Turchetti, G.) Application of Padé approximants to elastic wave propagation problems. **80k:73020**

Musgrave, M. J. P. *See* **Barry, P. A., 80k:73019**

Nedoma, Jiří SH-wave propagation in quasianisotropic rocks: problem of partial differential equation with rapidly oscillating coefficients. **80f:73029**

Pal, P. C. (*with* Debnath, Lokenath) Generation of SH-type waves in layered anisotropic elastic media. **80m:73017**

Scheidl, W. (*with* Ziegler, F.) Interaction of a pulsed Rayleigh surface wave and a rigid cylindrical inclusion. **80f:73030**

Servizi, G. *See* **Mainardi, F.; et al., 80k:73020**

Simons, D. A. Scattering of SH waves by thin, semi-infinite inclusions. **80k:73021**

Turchetti, G. *See* **Mainardi, F.; et al., 80k:73020**

Wesson, Robert L. *See* **Gangi, Anthony F., 80g:73020**

Ziegler, F. *See* **Scheidl, W., 80f:73030**

Secondary classifications:

Gupta, D. P. (*with* Soni, B. R.) On magnetothermoelastic waves in asymmetric elastic medium. (Russian summary) **(80j:73031)**

Kazi, M. H. Transmission, reflection and diffraction of Love waves in an infinite strip with a surface step. **(80g:73024)**

Soni, B. R. *See* **Gupta, D. P., (80j:73031)**

73D20 Surface waves

Barnett, D. M. (*with* Lothe, J.) The existence of Rayleigh (surface) wave solutions in anisotropic linear elastic half spaces. **80f:73031**
See also **Lothe, J., 80g:73021**

Cambiaggio, E. (*with* Cuozzo, F.) Finite difference analysis of surface acoustic wave propagation and scattering in piezoelectric crystals. **80k:73022**

Chadwick, P. (*with* Jarvis, D. A.) Surface waves in a prestressed ellastic body. **80k:73023**

Crampin, S. *See* **Taylor, D. B., 80b:73014**

Cuozzo, F. *See* **Cambiaggio, E., 80k:73022**

Currie, P. K. The secular equation for Rayleigh waves on elastic crystals. **80k:73026**

Das Gupta, S. P. On transient Rayleigh waves in an isotropic half plane. **80e:73020**

Di Cola, G. *See* **Rizza, L. Bassotti, 80g:73022**

Franchi, Franca On the propagation of thermal waves. (Italian) **80d:73041**

Jarvis, D. A. *See* **Chadwick, P., 80k:73023**

Lothe, J. (*with* Barnett, D. M.) On the existence of surface wave solutions in piezoelectric crystals. An example of non-existence. **80g:73021**
See also **Barnett, D. M., 80f:73031**

Maradudin, A. A. *See* **Wallis, R. F.; et al., 80c:73025**

Mills, D. L. *See* **Wallis, R. F.; et al., 80c:73025**

Musgrave, M. J. P. Progressive waves in anisotropic media. **80f:73032**

Rizza, L. Bassotti (*with* Di Cola, G.) Defects and excesses of the eigenvalues of a

problem of elasticity with respect to a cube. (Italian. English summary) **80g:73022**

Schulenberger, John R. Elastic waves in the half space R^3_+. **80d:73042**

Taylor, D. B. (*with* Crampin, S.) Surface waves in anisotropic media: propagation in a homogeneous piezoelectric halfspace. **80b:73014**

On the existence of elastic surface waves. **80d:73043**

Taylor, Michael E. Rayleigh waves in linear elasticity as a propagation of singularities phenomenon. **80i:73016**

Viktorov, I. A. Types of acoustic surface waves in solids (review). **80j:73015**

Wallis, R. F. (*with* Mills, D. L.; Maradudin, A. A.) Attenuation of Rayleigh waves by point defects. **80c:73025**

Secondary classifications:

Baĭmagambetov, U. *See* **Molotkov, L. A.,** (**80g:86009**)

Kornev, V. M. Transient waves and dynamical boundary effects in inhomogeneous rods. (Russian) (**80b:73022**)

Molotkov, L. A. (*with* Baĭmagambetov, U.) The study of wave propagation in layered transversal-isotropic elastic media. (Russian. English summary) (**80g:86009**)

See also **Questions in the dynamical theory of seismic wave propagation,** (**80m:73033a**)

Petrashen', G. I. Foundations of the mathematical theory of the propagation of elastic waves. (Russian) (**80m:73033b**)

(Volin, A. P.) *See* **Questions in the dynamical theory of seismic wave propagation,** (**80m:73033a**)

Questions in the dynamical theory of seismic wave propagation ★Вопросы динамической теории распространения сейсмических волн. Вып. XVIII. (Russian) [Questions in the dynamical theory of seismic wave propagation. No. 18] (**80m:73033a**)

Wave propagation *See* **Questions in the dynamical theory of seismic wave propagation,** (**80m:73033a**)

73D25 Wave diffraction and dispersion

Boström, Anders Scattering of stationary acoustic waves by an elastic obstacle immersed in a fluid. **80m:73018**

Multiple scattering of elastic waves by bounded obstacles. **80m:73019**

Cabannes, Henri Propagation des discontinuités dans les cordes vibrantes soumises à un frottement solide. (English summary) **80m:73020**

Čeban, V. G. (*with* Čigarev, A. V.) Scattering of waves by chaotically reinforcing impurities in an elastic medium. (Russian) **80f:73033**

Čerevko, M. O. *See* **Guz', O. M.; et al.,** **80b:73027**

Čigarev, A. V. *See* **Čeban, V. G.,** **80f:73033**

Datta, Subhendu K. (*with* El-Akily, Nabil) Diffraction of elastic waves in a half space. I. Integral representations and matched asymptotic expansions. **80g:73023**

DeSanto, J. A. Theory of scattering from multilayered bodies of arbitrary shape. **80m:73021**

El-Akily, Nabil *See* **Datta, Subhendu K.,** **80g:73023**

Gautesen, A. K. On matched asymptotic expansions for two-dimensional elastodynamic diffraction by cracks. **80d:73044**

Gołębiewska-Lasota, Alicja A. The problem of wave propagation in periodically reinforced elastic body: plane strain. **80k:73024**

Guz', O. M. (*with* Kubenko, V. D.; Čerevko, M. O.) ★Дифракция упругих волн. (Russian) [Diffraction of elastic waves] **80b:73027**

Ilan, Amnon Stability of finite difference schemes for the problem of elastic wave propagation in a quarter plane. **80d:73045**

Israilov, M. Š. Exact solutions of problems of wave diffraction on two parallel half-planes. (Russian) **80f:73034**

Exact solutions of three-dimensional problems of the diffraction of plane elastic waves by a wedge. (Russian) **80k:73025**

Kazi, M. H. Transmission, reflection and diffraction of Love waves in an infinite strip with a surface step. **80g:73024**

Kubenko, V. D. *See* **Guz', O. M.; et al.,** **80b:73027**

Ostaševskiĭ, V. E. (*with* Tatarskiĭ, V. I.) The method of multiple forward scattering in media with random inhomogeneities. (Russian. English summary) **80c:73026**

Peterson, Bo Å. (*with* Varadan, Vasundara V.; Varadan, Vijay K.) Scattering of acoustic waves by elastic and viscoelastic obstacles immersed in a fluid. **80m:73022**

Sharma, J. P. *See* **Viswanathan, K.,** **80b:73028**

Slaha, T. K. Diffraction of a plane pulse due to a rigid quarter space upon an elastic half space. **80m:73023**

Tatarskiĭ, V. I. *See* **Ostaševskiĭ, V. E.,** **80c:73026**

Varadan, Vasundara V. *See* **Peterson, Bo Å.; et al.,** **80m:73022**

Varadan, Vijay K. *See* **Peterson, Bo Å.; et al.,** **80m:73022**

Viswanathan, K. (*with* Sharma, J. P.) On the matched asymptotic solution of the diffraction of a plane elastic wave by a semi-infinite rigid boundary of finite width. **80b:73028**

Secondary classifications:

Acharya, D. *See* **Sengupta, P. R.,** (**80i:73070**)

Sengupta, P. R. (*with* Acharya, D.) The influence of gravity on the propagation of waves in a thermo-elastic layer. (**80i:73070**)

Wilcox, Calvin H. Asymptotic wave functions and energy distributions in strongly propagative anisotropic media. (**80j:35082**)

73D30 Linear vibrations [See also 70Jxx.]

Amerio, Luigi Continuous solutions of the problem of a string vibrating against an obstacle. (Italian summary) **80b:73029**

Babeiko, V. A. A new method in the theory of three-dimensional dynamic mixed problems. (Russian) **80b:73015**

Bakvalov, N. S. The averaging of partial differential equations with rapidly oscillating coefficients. (Russian) **80c:73027**

Bamberger, A. (*with* Jaffre, J.; Yvon, J. P.) Punctual control of a vibrating string: numerical analysis. **80a:73024**

Bandyopadhyay, D. K. Eigenvibrations of a rectangular anisotropic plate. **80b:73016**

Bhattacharya, S. *See* **Dey, S. K.,** **80i:73017**

Bohl, Erich On two boundary value problems in nonlinear elasticity from a numerical viewpoint. **80c:73028**

Boulanger, Philippe Contribution à l'électrodynamique des continus élastiques et viscoélastiques. **80m:73024**

Danilov, V. Ja. (*with* Fedorčenko, Ĭ. S.) A problem of optimal damping of oscillations of an elastic rod. (Russian) **80d:73046**

Datta, Subhendu K. (*with* Kanwal, R. P.) Rectilinear oscillations of a rigid spheroid in an elastic medium. **80g:73025**

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Dżagmaidze, A. Ja. An effective solution of the dynamic problem of elasticity theory for a piecewise homogeneous sphere. (Russian. Georgian and English summaries) **80d:73047**

Eichenauer, W. Zur optimalen Randkontrolle eines schwingenden Balkens. **80d:73048**

Fedorčenko, Ĭ. S. *See* **Danilov, V. Ja.,** **80d:73046**

Gottlieb, Hans P. W. Harmonic properties of the annular membrane. **80f:73035**

Gutowski, Roman An introduction to the stability of motion of continua. (Polish) **80g:73026**

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Keikel, K. Parametererregte Schwingungen elastischer Rotoren. **80b:73030**

Kosmodamians'kiĭ, O. S. (*with* Storožev, V. Ĭ.) Homogeneous solutions of the problem of oscillations of thick multiply connected plates with an asymmetric stress tensor. (Russian. English summary) **80b:73017**

Kučerenko, V. V. (*with* Popov, V. A.) High-frequency oscillations of plates. (Russian) **80d:73049**

Lakin, W. D. Effect of a small tip mass on the vibrations of a rapidly rotating flexible rod. **80a:73025**

Leipholz, H. H. E. On a variational principle for Beck's rod. **80b:73018**

Padovan, Joseph On gyroscopic problems in elasticity. **80b:73019**

Phelps, J. S., III *See* **Siewert, C. E.,** **80b:73020**

Popov, V. A. *See* **Kučerenko, V. V.,** **80d:73049**

Siewert, C. E. (*with* Phelps, J. S., III) On solutions of a transcendental equation basic to the theory of vibrating plates. **80b:73020**

Starosel'skiĭ, L. A. Equations describing the oscillations of curvilinear elastic rods. (Russian) **80j:73016**

Storožev, V. Ĭ. *See* **Kosmodamians'kiĭ, O. S.,** **80b:73017**

Trocenko, V. A. Nonaxially symmetric oscillations of a hyperelastic circular membrane under finite perturbations. (Russian) **80j:73017**

Waberski, Aleksander Stochastic vibrations of plates with a complex form that are clamped on the boundary. (Polish. Russian and English summaries) **80m:73026**

Yvon, J. P. *See* **Bamberger, A.; et al.,** **80a:73024**

Secondary classifications:

Gibert, Philippe Encadrement numérique des fréquences propres de structures complexes linéaires. (English summary) (**80k:65085**)

Kalaba, Robert E. (*with* Zagustin, Elena A.) An initial-value method for the determinantal equations of vibrations and flutter. (**80c:65088**)

Kaljuža, V. M. Elementary models of linear viscoelastic media. (Russian. English summary) (**80b:73028**)

Peters, David A. (*with* Wu, Julian J.) Asymptotic solutions to a stability problem. (**80c:93103**)

Stevanović, K. R. One-frequency nonlinear forced vibrations of uniform beams. (Russian and Serbo-Croatian summaries) (**80d:73078**)

Wu, Julian J. *See* **Peters, David A.,** (**80c:93103**)

Zagustin, Elena A. *See* **Kalaba, Robert E.,** (**80c:65088**)

73D35 Nonlinear vibrations [See also 70Kxx.]

d'Acunto, Berardino A nonlinear case of elastic vibrations of a string. (Italian) **80g:73027**

Altaliev, Š. M. (*with* Bakirov, Ž. B.; Tusupbaev, M. D.) Nonlinear oscillations of saw disks. (Russian) **80f:73036**

Bakirov, Ž. B. *See* **Altaliev, Š. M.; et al.,** **80f:73036**

Crespo da Silva, M. R. M. Harmonic non-linear response of Beck's column to a lateral excitation. **80a:73027**

Dubigeon, S. (*with* Michon, J. C.) Petits mouvements des structures autour d'un état contraint. (English summary) **80h:73031**

Green, W. A. Wave propagation in strongly anisotropic elastic materials. (Polish and Russian summaries) **80d:73050**

Gutowski, Roman Sensitivity of the solutions for an equation of nonlinear string oscillations to variations in the coefficients of its linear part. (Russian) **80h:73032**

Koval'čuk, P. S. (*with* Krasnopol'skaja, T. S.) Resonance phenomena in nonlinear oscillations of cylindrical shells with initial imperfections. (Russian) **80f:73018**

Krasnopol'skaja, T. S. *See* **Koval'čuk, P. S.,** **80f:73018**

Meiss, James D. (*with* Watson, Kenneth M.) Discussion of some weakly nonlinear systems in continuum mechanics. **80d:73051**

Michon, J. C. *See* **Dubigeon, S.,** **80h:73031**

Nigul, U. K. Asymptotic description of the process of feeble distortion of a longitudinal wave in a nonlinear hereditarily elastic medium. (Russian) **80m:73025**

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Tusupbaev, M. D. *See* **Altaliev, Š. M.; et al.,** **80f:73036**

Watson, Kenneth M. *See* **Meiss, James D.,** **80d:73051**

Wu, Julian J. (*with* Shen, C. N.) Vibrations of a helicopter rotor blade using finite element-unconstrained variational formulations. **80d:73052**

Secondary classifications:

Esposito, Anna (*with* Romano, Manfredi) Error estimates for eigenvector approximation in the theory of elastic vibrations. (Italian summary) **(80e:49036)**

Kozʹmina, E. S. Solvability of equations of nonlinear oscillations of cylindrical shells. (Russian) **(80m:73059)**

(Litvin-Sedoĭ, M. Z.) *See* **Schmidt, Günter, (80d:70042)**

Makowiecka, Irena Investigations into the boundedness of the solutions for the equation of the longitudinal vibrations of the bar. **(80e:35038)**

Romano, Manfredi *See* **Esposito, Anna, (80e:49036)**

Schmidt, Günter ★Параметрические колебания. (Russian) [Parametric oscillations] **(80d:70042)**

(Staržinskiĭ, V. M.) *See* **Schmidt, Günter, (80d:70042)**

Wesołowski, Z. Strong discontinuity wave in initially strained elastic medium. (Polish and Russian summaries) **(80d:73056)**

73D99 None of the above, but in this section

Aleksandrovič, A. I. Use of holomorphic expansion to investigate the equations of dynamic problems of elasticity. **80m:73026**

Antman, Stuart S. (*with* Liu, Tai Ping) Travelling waves in hyperelastic rods. **80h:73021**

Babič, S. Ju. (*with* Guzʹ, O. M.; Žuk, A. P.) Elastic waves in bodies with initial stresses. (Russian) **80e:73021**

Bachman, R. C. (*with* Cohen, H.) Wave propagation in elastic rods with multiple wave speeds. **80f:73037**

Bécue, Georges A. Wave propagation in imperfectly periodic structures: a random evolution approach. (French summary) **80e:73022**

Diffusion approximation to wave propagation in imperfectly periodic structures. (French summary) **80j:73018**

Bedding, R. J. (*with* Willis, J. R.) The elastodynamic Green's tensor for a half-space with an embedded anisotropic layer. **80m:73027**

Bekturssunov, U. On the theory of lateral shock along flexible couplings. (Russian. Kazakh summary) **80h:73026**

Bestuševa, N. P. (*with* Čigarev, A. V.) On the use of Markovian approximation in dynamics of stochastic media. **80e:73023**

Borejko, P. Reflection and refraction of an acceleration wave at boundary between two nonlinear elastic materials. (Polish and Russian summaries) **80k:73027**

Čigarev, A. V. *See* **Meĭkov, S. I., 80h:73035** *and* **Bestuševa, N. P., 80e:73023**

Cohen, H. (*with* Epstein, Marcelo) Acceleration waves in constrained elastic rods. **80h:73033**

See also **Bachman, R. C., 80f:73037** *and* **Whitman, A. B., 80m:73032**

Dzięcielak, Ryszard An acceleration wave in a consolidating medium. (Polish. Russian and English summaries) **80a:73028**

Engelʹbrekht, Ju. K. On the theory of nonlinear waves of deformation in an inhomogeneous medium. (Russian. Estonian and English summaries) **80e:73024**

Epstein, Marcelo *See* **Cohen, H., 80h:73033**

Florito, Ralph (*with* Madigosky, Walter; Überall, Herbert) Resonance theory of acoustic waves interacting with an elastic plate. **80j:73019**

Fraser, W. B. Orthogonality of the elastodynamic eigenfunctions for a cylinder of arbitrary cross-section. **80m:73028**

Gegelia, T. G. (*with* Maĭsaia, O. I.) Fundamental mathematical problems of the dynamical state of an elastic unbounded medium. (Russian) **80d:73053**

Guzʹ, O. M. *See* **Babič, S. Ju.; et al., 80e:73021**

Hughes, P. C. Modal identities for elastic bodies, with application to vehicle dynamics and control. **80m:73029**

Hutorjanskiĭ, N. M. The method of generalized time-lag potentials and integral equations in transient dynamical problems of the theory of elasticity. (Russian) **80h:73034**

Jarić, J. (*with* Vukobrat, M.) On conservation laws in elastodynamics. (Russian and Serbo-Croatian summaries) **80d:73054**

Keller, Joseph B. Elastic waveguides. **80g:73028**

Knops, R. J. (*with* Payne, L. E.) Nonexistence of global solutions in nonlinear Cauchy elastodynamics. **80j:73020**

Kočura, A. E. *See* **Veĭc, V. L., 80e:73026**

Kornev, V. M. Transient waves and dynamical boundary effects in inhomogeneous rods. (Russian) **80h:73022**

Liu, Tai Ping *See* **Antman, Stuart S., 80h:73021**

Lokšin, A. A. Scattering of a plane wave in media with singular memory. (Russian) **80d:73055**

The scattering of a two-dimensional wave in media with memory. (Russian. English summary) **80f:73038**

Madigosky, Walter *See* **Florito, Ralph; et al., 80j:73019**

Maĭsaia, O. I. *See* **Gegelia, T. G., 80d:73053**

Meĭkov, S. I. (*with* Čigarev, A. V.) On wave propagation in inhomogeneous viscoelastic-plastic media. **80h:73035**

(Meĭstrov, L. A.) *See* **Questions in the dynamical theory of seismic wave propagation, 80m:73033a**

Morro, Angelo Interaction of acoustic waves with shock waves in elastic solids. (French summary) **80g:73029**

Musgrave, M. J. P. Temperature compensation and travel times of waves. **80m:73030**

Nemirovskiĭ, Ju. V. (*with* Šlemenzon, K. M.) On the question of the propagation of elastic stress waves in continuously inhomogeneous anisotropic media. (Russian) **80k:73028**

Nistor, I. Shock waves in nonlinear micropolar elasticity. **80f:73039**

Obayon, Roger Homogénéisation par développements asymptotiques mixtes. Vibrations harmoniques d'un anneau hétérogène à structure périodique. (English summary) **80c:73029**

Parker, D. F. Finite-amplitude oscillations of a spherical cavity in a nearly-incompressible elastic material. **80i:73019**

(*with* Seymour, B. R.) Finite amplitude one-dimensional pulses in an inhomogeneous granular material. **80j:73021**

Payne, L. E. *See* **Knops, R. J., 80j:73020**

Petrašen', G. I. Foundations of the mathematical theory of the propagation of elastic waves. (Russian) **80m:73033b**

Rao, C. R. A. Wave propagation in elastic media with prescribed variation in the parameters. **80g:73030**

Epstein transition zones in nonhomogeneous isotropic elastic media. **80m:73031**

Rivlin, R. S. *See* **Sawyers, K. N., 80b:73023**

Saičev, A. I. On statistics of longitudinal nonlinear random waves in an elastic body. **80i:73020**

Sawyers, K. N. (*with* Rivlin, R. S.) A note on the Hadamard criterion for an incompressible isotropic elastic material. **80b:73023**

Schreyer, Howard L. *See* **Shih, Pen Yuan, 80e:73025**

Seymour, B. R. *See* **Parker, D. F., 80j:73021**

Shih, Pen Yuan (*with* Schreyer, Howard L.) Lower bounds to fundamental frequencies and buckling loads of columns and plates. **80e:73025**

Simonov, I. V. A moving load on a layer of an ideally contracting material. (Russian) **80k:73029**

Šlemenzon, K. M. *See* **Nemirovskiĭ, Ju. V., 80k:73028**

Slepjan, L. I. Betti theorem and orthogonality relations for eigenfunctions. **80k:73030**

Überall, Herbert *See* **Florito, Ralph; et al., 80j:73019**

Ungar, Abraham The use of a new operational method in solid mechanics. **80k:73036**

Veĭc, V. L. (*with* Kočura, A. E.) A method for the determination of characteristic spectra of composite elastic systems. (Russian) **80e:73026**

(Volin, A. P.) *See* **Questions in the dynamical theory of seismic wave propagation, 80m:73033a**

Vukobrat, M. *See* **Jarić, J., 80d:73054**

Wauer, J. Eigenwertaufgaben hybrider Schwingungssysteme mit elastisch angekoppelten Starrkörpern. **80k:73031**

Wesołowski, Z. Strong discontinuity wave in initially strained elastic medium. (Polish and Russian summaries) **80d:73056**

Whitman, A. B. (*with* Cohen, H.) Waves and instability in simple orthotropic elastic rods. **80m:73032**

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Žuk, A. P. *See* **Babič, S. Ju.; et al., 80e:73021**

Questions in the dynamical theory of seismic wave propagation ★Вопросы динамической теории распространения сейсмических волн. Вып. XVIII. (Russian) [Questions in the dynamical theory of seismic wave propagation. No. 18] **80m:73033a**

Wave propagation *See* **Questions in the dynamical theory of seismic wave propagation, 80m:73033a**

Secondary classifications:

Buzzetti, Francesco Wave propagation in an unbounded M-dimensional medium when the resistance is a discontinuous function of the velocity. III. (Italian) **(80j:35058)**

Engquist, Björn (*with* Majda, Andrew) Radiation boundary conditions for acoustic and elastic wave calculations. **(80e:76041)**

Irie, Toshihiro (*with* Yamada, Gen) Analysis of free vibration of annular plate of variable thickness by use of a spline technique method. **(80m:73051)**

Krylov, A. L. (*with* Lifšic, A. E.) On natural oscillations of anisotropic media. (Russian) **(80m:35071)**

Lifšic, A. E. *See* **Krylov, A. L., (80m:35071)**

Lokšin, A. A. Wave equations with memory and one-dimensional oscillatory integrals. (Russian. English summary) **(80h:45017)**

Majda, Andrew *See* **Engquist, Björn, (80e:76041)**

Molinari, Alain Ondes progressives en milieux dissipatifs: une théorie des rayons différés. (English summary) **(80k:35061)**

Tokuoka, T. One-dimensional plastic materials with work-hardening. I. Constitutive equations and stress-strain relations. **(80i:73026a)**

One-dimensional plastic materials with work-hardening. II. Acceleration waves. **(80i:73026b)**

Yamada, Gen *See* **Irie, Toshihiro, (80m:73051)**

73Exx Plasticity

73E05 Yield criteria and flow rules

Gotoh, M. The mathematical yield and/or fracture conditions of elastoplastic solids. (Polish and Russian summaries) **80c:73030**

Hill, R. Theoretical plasticity of textured aggregates. **80b:73024**

Marčenko, V. M. Some extremal principles in the new theory of plastic flow. (Russian) **80d:73057**

Senašov, S. I. Group classification of equations of ideal plasticity with a fluidity condition of a general form. (Russian) **80g:73031**

Strang, Gilbert A family of model problems in plasticity. **80f:73040**

Secondary classifications:

Belytschko, T. *See* **Stolarski, H., (80m:73040)**

Gurtin, Morton E. On the nonlinear theory of elasticity. **(80d:73035)**

Shoemaker, E. M. On nonexistence of collapse solutions in rigid-perfect plasticity. **(80m:73039)**

Stolarski, H. (*with* Belytschko, T.) Large deformation, rigid-plastic dynamics by an extremum principle. **(80m:73040)**

73E10 Method of successive approximations

Amin, B. D. (*with* Sadovskiĭ, V. M.) Numerical solution of a problem of elastoplastic torsion of a cylindrical rod of oval cross section. (Russian) **80e:73027**

Hämlich, Rolf On simultaneous torsion and tension of a circular cylindrical bar

consisting of an elastoplastic material with linear hardening. (German and Russian summaries) **80m:73034**

Sadovskiĭ, V. M. *See* **Annin, B. D., 80e:73027**

73E15 Slip-line theory

73E20 Limit analysis

Friaâ, Ahmed Le matériau de Norton-Hoff généralisé et ses applications en analyse limite. (English summary) **80a:73029**

Kleiber, Michal *See* **König, Jan A., 80a:73030**

König, Jan A. (*with* Kleiber, Michal) On a new method of shakedown analysis. (Russian summary) **80a:73030**

Secondary classifications:

Christiansen, E. *See* **Matthies, H.; et al., (80e:49019)**

Gel'dštein, R. V. Application of integral equations to the numerical solution of problems in elasticity and plasticity theory. (Russian) **(80g:73014)**

Matthies, H. (*with* Strang, Gilbert; Christiansen, E.) The saddle point of a differential program. **(80e:49019)**

Strang, Gilbert *See* **Matthies, H.; et al., (80e:49019)**

73E25 Creep

Hayhurst, D. R. (*with* Krzeczkowski, A. J.) Numerical solution of creep problems. **80l:73021**

Krzeczkowski, A. J. *See* **Hayhurst, D. R., 80l:73021**

Kurlin, L. M. Creep stability: a survey. **80f:73041**

Philippin, Gérard A. A minimum principle for the problem of torsional creep. **80f:73042**

73E99 None of the above, but in this section

Alekseev, A. E. Stress determination in problems of deformation of an ideal rigidly plastic medium. (Russian) **80f:73043**

The lower bound of the magnitude of surface forces in plane deformation of an ideal rigidly plastic medium. (Russian) **80l:73022**

Bejda, Józef Solution of boundary value wave problems in plastic rods with account taken of their sensitivity to strain rate and temperature. (Polish. Russian and English summaries) **80e:73028**

Belytschko, T. *See* **Stolarski, H., 80m:73040**

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Bublte, Jack L. (*with* Owen, David R.) An ordinary differential equation from the theory of plasticity. **80l:73023**

Chipot, Michel Some results about an elastic-plastic torsion problem. **80d:73058**

Christoffersen, J. (*with* Hutchinson, J. W.) A class of phenomenological corner theories of plasticity. **80m:73035**

Drujanov, B. A. Deformation propagation in hardening rigidly-plastic bodies. (Russian) **80c:73031**

Gröger, Konrad Evolution equations in the theory of plasticity. **80l:73024**

Zur Theorie des dynamischen Verhaltens von elastisch-plastischen Körpern. (English and Russian summaries) **80d:73059**

(*with* Nečas, Jindřich; Trávníček, L.) Dynamic deformation processes of elastic-plastic systems. (German and Russian summaries) **80m:73036**

Halphen, Bernard Sur les discontinuités de vitesse en élastoplasticité. (English summary) **80a:73031**

Hutchinson, J. W. *See* **Christoffersen, J., 80m:73035**

Kamenjarž, Ja. A. Dual problems of the limit load theory for ideally plastic bodies. (Russian) **80f:73044**

Kaneko, Ikuyo Complete solutions for a class of elastic-plastic structures. **80m:73037**

Kreupl, E. *See* **Walker, K. P., 80c:73032**

Matthies, Hermann Existence theorems in thermoplasticity. (French and German summaries) **80k:73032**

McFall, Nancy A. *See* **Best, Michael J., 80g:73032**

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Polizzotto, Castrenze A local bounding principle for dissipation energy in shakedown of elastic-perfectly plastic solids. **80m:73038**

Rafalski, Pawel (*with* Weichert, Dieter) On minimum principles for elastic-plastic plates. (Russian summary) **80l:73025**

On the existence and uniqueness of solutions in plasticity. (Russian summary) **80m:76048**

Rahmanov, P. A. Propagation of elastoplastic displacement waves with lagging fluctuation. (Russian) **80f:73045**

Revuženko, A. F. (*with* Šemjakin, E. I.) Some formulations of boundary value problems of *L*-plasticity. (Russian) **80e:73029**

Romenskiĭ, E. I. The dynamical three-dimensional equations of the elasto-plastic model of H. A. Rahmatulin. (Russian) **80g:73033**

Šemjakin, E. I. *See* **Revuženko, A. F., 80e:73029**

Senašov, S. I. Group classification of the equations of ideal plasticity of inhomogeneous bodies. (Russian) **80a:73032**

Shoemaker, E. M. On nonexistence of collapse solutions in rigid-perfect plasticity. **80m:73039**

Stolarski, H. (*with* Belytschko, T.) Large deformation, rigid-plastic dynamics by an extremum principle. **80m:73040**

Suquet, Pierre-Marie Existence et régularité des solutions des équations de la plasticité. (English summary) **80a:73033**

Švajko, N. Ju. Complex loading and certain problems of the bifurcation of the elastic-plastic process. **80e:73030**

Two forms of bifurcation of a deformation process in an elastoplastic solid under combined loading. (Russian. English summary) **80g:73034**

Tokuoka, T. One-dimensional plastic materials with work-hardening. I. Constitutive equations and stress-strain relations. **80l:73026a**

One-dimensional plastic materials with work-hardening. II. Acceleration waves. **80l:73026b**

Trávníček, L. *See* **Gröger, Konrad; et al., 80m:73036**

Walker, K. P. (*with* Krempl, E.) An implicit functional representation of stress-strain behavior. **80c:73032**

Weichert, Dieter *See* **Rafalski, Pawel, 80l:73025**

Winnicki, L. A. (*with* Zienkiewicz, O. C.) Plastic (or viscoplastic) behaviour of axisymmetric bodies subjected to nonsymmetric loading—semi-analytical finite element solution. **80k:73033**

Woźniak, M. On the solution of a certain class of spatial problems in the theory of plastic flow. I. Foundations. (Polish and Russian summaries) **80c:73033a**

On the solution of a certain class of spatial problems in the theory of plastic flow. II. Applications. (Polish and Russian summaries) **80c:73033b**

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Aronsson, Gunnar An integral inequality and plastic torsion. **(80g:49003)**

Bellomo, B. R. An algorithm for the numerical solution of a variational inequality related to the elastic-plastic behavior of a beam supported at its ends. (Italian. English summary) **(80c:65029)**

Mihăilescu-Suliciu, Mihaela (*with* Suliciu, Ion) Energy for hypoelastic constitutive equations. **(80b:73005)**

(Novožilov, V. V.) *See* **Studies in elasticity and plasticity, (80d:73004)**

Strang, Gilbert *See* **Temam, Roger, (80b:35071)**

Suliciu, Ion *See* **Mihăilescu-Suliciu, Mihaela, (80b:73005)**

Temam, Roger (*with* Strang, Gilbert) Existence de solutions relaxées pour les équations de la plasticité: étude d'un espace fonctionnel. (English summary) **(80b:35071)**

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73Fxx Viscoelasticity

73F05 Creep and relaxation functions

Arora, H. L. Asymptotic stability of a viscoelastic elliptic shaft. **80b:73026**

Boulanger, Philippe (*with* Mayné, Georges) Linear viscoelastic materials of the integro-differential type. **80l:73027**

Černjakov, Ju. A. The uniqueness of the solution of boundary value problems in terms of a variant in slip theory. (Russian. English summary) **80b:73025**

Mayné, Georges *See* **Boulanger, Philippe, 80l:73027**

Navarro, Carlos B. On symmetry and monotonicity of relaxation functions in linear viscoelasticity. (French summary) **80k:73034**

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Lodge, A. S. (*with* McLeod, J. B.; Nohel, John A.) A nonlinear singularly perturbed Volterra integro-differential equation occurring in polymer rheology. **(80e:45008)**

McLeod, J. B. *See* **Lodge, A. S.; et al., (80e:45008)**

Nohel, John A. *See* **Lodge, A. S.; et al., (80e:45008)**

73F10 Correspondence principle

73F15 Time-dependent boundary value problems

Arya, J. C. (*with* Lardner, R. W.) Plane shock waves in viscoelastic media displaying cubic elasticity. **80m:73041**

Bloom, Frederick A note on growth estimates for the displacement vector in viscoelastic materials. **80a:73034**

Clobanu, Gh. Gr. Stability of the solutions in linear viscoelasticity. (Romanian summary) **80a:73035**

Edelstein, Warren S. On transient creep bounds for Saint-Venant pure bending problems. **80e:73031**

Feijóo, Raul A. *See* **Raupp, Marco A.; et al., 80a:73036**

Fichera, Gaetano Having a long memory creates serious problems. (Italian) **80k:73035**

Golden, J. M. The problem of a rigid punch moving on a viscoelastic half-plane with inertial effects approximately included. **80k:73036**

The problem of a moving rigid punch on an unlubricated viscoelastic half-plane. **80c:73034**

Laborde, Patrick On visco-plasticity with hardening. **80g:73035**

Lardner, R. W. *See* **Arya, J. C., 80m:73041**

Mitschka, P. *See* **Wein, O., 80m:73042**

Moura, Carlos A. *See* **Raupp, Marco A.; et al., 80a:73036**

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Nurkumaev, O. Propagation of stress waves in a viscoelastic medium under the action of moving loads. (Russian. Kazakh summary) **80k:73037**

Raupp, Marco A. (*with* de Rezende, N. S.) Computation of longitudinal motions of a viscoelastic bar. **80d:73060**

(*with* Feijóo, Raul A.; Moura, Carlos A.) A nonlinear problem in dynamic visco-elasticity with friction. **80a:73036**

de Rezende, N. S. *See* **Raupp, Marco A., 80d:73060**

Schapery, R. A. *See* **Walton, J. R.; et al., 80a:73037**

Senickiĭ, Ju. È Finite integral transformations in problems of the dynamics of elastic and viscoelastic systems. (Russian. Bulgarian and English summaries) **80d:73061**

Walton, J. R. (*with* Nachman, A.; Schapery, R. A.) The sliding of a rigid indentor over

a power-law viscoelastic half-space. **80a:73037**

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Secondary classifications:

Lekhin, A. A. Scattering of a plane wave in media with singular memory. (Russian) **(80d:73055)**

73F20 Aging of materials

Graham, G. A. C. Fracture of linear ageing viscoelastic material. **80a:73038**

Trapeznikov, L. P. Thermodynamic potentials in the theory of creep of aging media. **80f:73046**

73F25 Environmental-dependent materials

73F99 None of the above, but in this section

Ahmadi, Goodarz (*with* Sohrabpour, Said) Elasto-viscoplastic-viscous theories of granular and porous media. (French and German summaries) **80g:73036**

Blitshteĭn, Ju. M. (*with* Čeban, V. G.) Shock waves that spread at the rate of elastic perturbations in visco-elastic media. (Russian) **80c:73035**

Bonc, R. (*with* Geymonat, G.) Linearized thermoviscoelasticity with high temperature variations and related periodic problems. **80c:73036**

Browne, Russell C. Dynamic stability of one-dimensional nonlinearly viscoelastic bodies. **80c:73032**

Čeban, V. G. *See* **Blitshteĭn, Ju. M., 80c:73035**

Day, W. A. Improved estimates for least work in linear viscoelasticity. **80d:73062**

Demiray, Hilmi (*with* Eringen, A. Cemal) Perforation of nonlocal visco-plastic plates by a cylindrical projectile. **80b:73027**

Edelstein, Warren S. *See* **Reichel, Paul G., 80a:73041**

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Fichera, Gaetano Integro-differential problems of hereditary elasticity. **80e:73033**

Filippov, I. G. (*with* Filippova, N. A.) Generalization of the Volterra method for solving dynamical problems in thermoviscoelastic media. (Russian) **80g:73037**

Filippova, N. A. A class of dynamic problems for viscoelastic media. (Russian) **80c:73037**

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Gurtin, Morton E. (*with* Reynolds, David W.; Spector, Scott J.) On uniqueness and bifurcation in nonlinear viscoelasticity. **80k:73038**

(*with* MacCamy, Richard C.; Murphy, Lea F.) On optimal strain paths in linear viscoelasticity. **80g:73038**

Kaljuža, V. M. Elementary models of linear viscoelastic media. (Russian. English summary) **80b:73028**

Karnaukhov, V. G. (*with* Senčenkov, I. K.) The principal thermomechanical theory of viscoelasticity for generalized thermorheologically simple materials. (Russian) **80i:73028**

See also **Senčenkov, I. K., 80c:73037**

Kecs, Wilhelm On models of one-dimensional linear viscoelastic solids. **80e:73034**

Klee, K.-D. Zur Berechnung grosser viskoplastischer Formänderungen. **80i:73029**

Kluge, Reinhard (*with* Langmach, Hartmut) On the determination of some rheologic properties of mechanical media. **80g:73039**

Kolokol'čikov, V. V. The convergence of the method of successive approximations with integral transformations for problems of nonlinear viscoelasticity. (Russian) **80f:73047**

Laborde, Patrick Approximation d'un problème en visco-plasticité. (English summary) **80d:73063**

Langmach, Hartmut *See* **Kluge, Reinhard, 80g:73039**

Lanier, J. Étude d'une loi de comportement pour des matériaux non visqueux. (English summary) **80b:73029**

Lubliner, J. A thermodynamic yield criterion in viscoplasticity. (German summary) **80a:73039**

MacCamy, Richard C. *See* **Gurtin, Morton E.; et al., 80g:73038**

Madan, V. P. Influence of an elastic end support on the stability of viscoelastic (Voigt) column. **80b:73030**

Malyĭ, V. I. Simplification of functionals of the theory of elastoplastic processes. (Russian) **80b:73031**

Mișicu, M. Consolidation induced by internal mobility of viscoelastic media and correlations with dual mechanics of continua. **80a:73040**

Murphy, Lea F. *See* **Gurtin, Morton E.; et al., 80g:73038**

Nakamura, Kiyoji Minimum principles in the linear theory of viscoelasticity. **80i:73030**

Reichel, Paul G. (*with* Edelstein, Warren S.) A sequence of lower bound approximate solutions for the problem of secondary creep in pressure vessels. (German summary) **80a:73041**

Reynolds, David W. *See* **Gurtin, Morton E.; et al., 80k:73038**

Rezunov, A. V. Analysis of the convergence of a heuristic iteration method in application to problems of antiplanar deformation of a viscoplastic medium. (Russian) **80d:73064**

Senčenkov, I. K. (*with* Karnauhov, V. G.) Some variational formulas of boundary value problems of nonlinear viscoelasticity. (Russian) **80c:73037**

See also **Karnauhov, V. G., 80i:73028**

Sohrabpour, Said *See* **Ahmadi, Goodarz, 80g:73036**

Spector, Scott J. *See* **Gurtin, Morton E.; et al., 80k:73038**

Tou, V. P. Dynamic contact problem for a viscoelastic half-plane. **80f:73048**

Užhov, A. M. Existence and uniqueness of the solutions of initial nonlinear integral equations of modified heredity in creep theory. (Russian) **80k:73039**

Wilkes, N. S. Continuous dependence and instability in linear viscoelasticity. (French summary) **80c:73038**

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Badalov, F. B. (*with* Hužajarov, N. Ju.) A method for solving the integral and integro-differential equations of the hereditary theory of viscoelasticity. (Russian) **(80k:45001)**

Hužajarov, N. Ju. *See* **Badalov, F. B., (80k:45001)**

Marris, A. W. Steady universal motions of Rivlin-Ericksen fluids. **(80h:76004a)**

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Wang, Chao Chen (*with* Marris, A. W.) Proof that motions obtained in the preceding paper by Marris are universal for all incompressible isotropic simple materials. **(80h:76004b)**

73Gxx Finite deformations

73G05 Finite elasticity

Breuer, Shlomo (*with* Roseman, Joseph J.) Integral bounds on the strain energy for the traction problem in finite elasticity. **80c:73039**

(*with* Roseman, Joseph J.) An integral bound for the strain energy in nonlinear elasticity in terms of the boundary displacements. **80d:73065**

Brilla, J. A compatible perturbation method in finite elasticity. **80d:73066**

Glowinski, Roland (*with* Le Tallec, Patrick) Une méthode numérique en élasticité non linéaire incompressible. (English summary) **80m:73043**

Golomb, Michael Stability of interpolating elastica. **80d:73067**

Gurtin, Morton E. (*with* Spector, Scott J.) On stability and uniqueness in finite elasticity. **80j:73022**

Hill, R. On the theory of plane strain in finitely deformed compressible materials. **80d:73068**

Knowles, James K. On the dissipation associated with equilibrium shocks in finite elasticity. **80f:73049**

Le Tallec, Patrick *See* **Glowinski, Roland, 80m:73043**

Ogden, R. W. Nearly isochoric elastic deformations: application to rubberlike solids. **80d:73069**

Roseman, Joseph J. *See* **Breuer, Shlomo, 80c:73039** *and* **Breuer, Shlomo, 80d:73065**

Spector, Scott J. *See* **Gurtin, Morton E., 80j:73022**

Torstensson, H. Small deformations superposed on a finite cylindrical deformation of a cord reinforced rubber belt. **80m:73044**

Wu, Chieu H. Large finite strain membrane problems. **80b:73032**

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Rivlin, R. S. *See* **Sawyers, K. N., (80b:73023)**

Sawyers, K. N. (*with* Rivlin, R. S.) A note on the Hadamard criterion for an incompressible isotropic elastic material. **(80b:73023)**

73G10 Strain energy functions

73G15 Finite viscoelasticity

73G20 Metal forming problems

73G99 None of the above, but in this section

Carroll, M. M. Finite amplitude standing waves in compressible elastic solids. **80a:73042**

Day, W. A. The stress in a body under variable traction. **80b:73038**

Secondary classifications:

Dost, S. (*with* Tabarrok, B.) Application of Hamilton's principle to large deformation and flow problems. **(80c:73003)**

Tabarrok, B. *See* **Dost, S., (80c:73003)**

73Hxx Stability (linear and nonlinear)

73H05 Buckling

Berkey, Dennis D. (*with* Freedman, Marvin I.) A perturbation method applied to the buckling of a compressed elastica. **80a:73043**

Cheung, Y. K. *See* **Jones, R.; et al., 80i:73032**

Do, Claude Nonlinear bifurcation problem and buckling of an elastic plate subjected to unilateral conditions in its plane. **80d:73070**

Freedman, Marvin I. *See* **Berkey, Dennis D., 80a:73043**

Galbe, G. (*with* Meziere, Y.) Remarques sur les coefficients de Timoshenko. **80i:73031**

Guz', O. M. (*with* Navojan, A. V.) Stability of an incompressible rod under uniform lateral pressure. (Russian. Armenian and English summaries) **80a:73044**

Hayman, B. Aspects of creep buckling. I. The influence of post-buckling characteristics. **80d:73071a**

Aspects of creep buckling. II. The effects of small deflexion approximations on predicted behaviour. **80d:73071b**

Jones, R. (*with* Mazumdar, J.; Cheung, Y. K.) Vibration and buckling of plates at elevated temperatures. **80i:73032**

Kajita, T. *See* **Mizusawa, T.; et al., 80j:73023**

Knightly, George H. (*with* Sather, D.) Nonlinear buckling and stability of cylindrical panels. **80d:73072**

Kolter, W. T. The influence of more or less localized imperfections on the buckling of circular cylindrical shells under axial compression. (Russian summary) **80a:73045**

Koshimae, Takashi On the nonexistence of global solutions for a nonlinear equation arising in the creep buckling theory. **80d:73073**

Kukudzhanov, S. N. Application of the method of successive approximations for the

determination of the critical load of a nonuniformly loaded cylindrical shell of variable thickness. (Russian. Armenian and English summaries) **80a:73046**

Lakin, W. D. (*with* Nachman, A.) Vibration and buckling of rotating flexible rods at transitional parameter values. **80i:73033**

Markström, Karl (*with* Storåkers, Bertil) Buckling of cracked members under tension. **80m:73045**

Mazumdar, J. *See* **Jones, R.; et al., 80i:73032**

Mezere, Y. *See* **Galbe, G., 80i:73031**

Mignot, F. (*with* Puel, J.-P.) Homogénéisation d'un problème de bifurcation. **80f:73050**

Mizusawa, T. (*with* Kajita, T.; Naruoka, M.) Buckling of skew plate structures using *B*-spline functions. **80j:73023**

Nachman, A. *See* **Lakin, W. D., 80i:73033**

Naruoka, M. *See* **Mizusawa, T.; et al., 80j:73023**

Navojan, A. V. *See* **Guz', O. M., 80a:73044**

Pogorelov, A. V. Buckling of cylindrical shells. (Russian) **80b:73039**

Puel, J.-P. *See* **Mignot, F., 80f:73050**

Reiss, Edward L. *See* **Sapir, Marilyn Hirschhorn, 80f:73051a** *and* **Sapir, Marilyn Hirschhorn, 80f:73051b**

Reissner, E. On lateral buckling of end-loaded cantilever beams. (German summary) **80d:73074**

Rika, E. An incremental approach to the solution of snapping and buckling problems. **80e:73035**

Sapir, Marilyn Hirschhorn (*with* Reiss, Edward L.) Dynamic buckling of a nonlinear Timoshenko beam. **80f:73051a**

(*with* Reiss, Edward L.) Erratum: "Dynamic buckling of a nonlinear Timoshenko beam" (SIAM J. Appl. Math. 37 (1979), no. 2, 290–301). **80f:73051b**

Sather, D. *See* **Knightly, George H., 80d:73072**

Shrivastava, S. C. Inelastic buckling of plates including shear effects. **80e:73036**

Storåkers, Bertil *See* **Markström, Karl, 80m:73045**

Sundararajan, C. Stability analysis of plates by a complementary energy method. **80m:73046**

Villaggio, Piero Buckling under unilateral constraints. **80b:73033**

Kyoto *See* **Stability, bifurcation and buckling in nonlinear elasticity theory and numerical analysis, 80g:73040**

Numerical analysis *See* **Stability, bifurcation and buckling in nonlinear elasticity theory and numerical analysis, 80g:73040**

Stability, bifurcation and buckling in nonlinear elasticity theory and numerical analysis ★Stability, bifurcation and buckling in nonlinear elasticity theory and numerical analysis. (Japanese) **80g:73040**

Symposium:

Stability, Bifurcation and Buckling in Nonlinear Elasticity Theory and Numerical Analysis *See* **Stability, bifurcation and buckling in nonlinear elasticity theory and numerical analysis, 80g:73040**

Theory of elasticity *See* **Stability, bifurcation and buckling in nonlinear elasticity theory and numerical analysis, 80g:73040**

Secondary classifications:

Al Athel, S. *See* **El Naschie, M. S., (80i:73034)**

El Naschie, M. S. (*with* Al Athel, S.) On certain finite element-like methods for nonconservative stability sets. **(80i:73034)**

Ishihara, Kazuo On the mixed finite element approximation for the buckling of plates. **(80k:65090)**

Kesavan, Srinivasan La méthode de Kikuchi appliquée aux équations de von Kármán. (English summary) **(80f:65132)**

Kikuchi, Fumio On a mixed finite element scheme for buckling analysis of plates. **(80d:73098)**

Kounadis, A. N. Dynamic snap-through buckling of a Timoshenko two bar frame under a suddenly applied load. (German and Russian summaries) **(80m:73047)**

Potier-Ferry, Michel Bifurcation et stabilité pour des systèmes dérivant d'un potentiel. (English summary) **(80e:58015)**

Perturbed bifurcation theory. **(80i:58020)**

Riddell, R. C. Eigenvalue problems for nonlinear elliptic variational inequalities. **(80d:49013)**

Thompson, J. M. T. Stability predictions through a succession of folds. **(80m:58011)**

73H10 Dynamic stability

Al Athel, S. *See* **El Naschie, M. S., 80i:73034**

Amiro, I. Ja. On determining the critical values of compressive forces that increase rapidly over time. (Russian) **80e:73037**

Bufler, H. Zur Struktur der Gleichungen der Elastokinetik und Elastostabilität. (English and Russian summaries) **80d:73075**

El Naschie, M. S. (*with* Al Athel, S.) On certain finite element-like methods for nonconservative stability sets. **80i:73034**

Grządziński, Janusz (*with* Nowak, Miron) Elimination of rigid-body degrees of freedom in flutter eigenvalue problem. (Russian summary) **80m:73048**

Kounadis, A. N. Dynamic snap-through buckling of a Timoshenko two bar frame under a suddenly applied load. (German and Russian summaries) **80m:73047**

Leipholz, H. H. E. On a justification of the modal approach to the stability of elastic rods subjected to nonconservative follower forces. **80i:73035**

Nowak, Miron *See* **Grządziński, Janusz, 80m:73048**

Rebiere, J. P. (*with* Sahraoui, S.) Parametric resonance by combined frequencies of cantilever bars under periodic axial load by the elastic-joint-method. **80d:73076**

Sabodaš, V. A. Dynamical stability of rods taking account of displacement bendings and rotary inertia. (Russian) **80e:73038**

Sahraoui, S. *See* **Rebiere, J. P., 80d:73076**

Secondary classifications:

Carr, J. (*with* Malhardeen, M. Z. M.) Beck's problem. **(80h:35013)**

Malhardeen, M. Z. M. *See* **Carr, J., (80h:35013)**

Švaiko, N. Ju. Two forms of bifurcation of a deformation process in an elastoplastic solid under combined loading. (Russian. English summary) **(80g:73034)**

73H99 None of the above, but in this section

Adeleke, S. A. Stability of some states of plane deformation. **80h:73040**

Arcisz, Maria Stability of fibre-reinforced prestressed elastic cylinder. (Russian summary) **80a:73047**

Berkey, Dennis D. (*with* Freedman, Marvin I.) Buckled elastica at contact: a perturbation analysis. **80g:73041**

Brilla, J. Stability problems in mathematical theory of viscoelasticity. **80a:73039**

Erlov, L. V. (*with* Zel'dič, E. I.) Investigation of the stability of equilibrium of three-dimensional deformable bodies. (Russian) **80c:73040**

Freedman, Marvin I. *See* **Berkey, Dennis D., 80g:73041**

Gegelia, T. G. On the investigation and approximate solution of the fundamental inhomogeneous boundary value problems for the inhomogeneous equation of elasticity. (Russian. Georgian and English summaries) **80h:73041**

Guz', O. M. ★Устойчивость упругих тел при всестороннем сжатии. (Russian) [Stability of elastic bodies under omnilateral compression] **80j:73024**

Variational principles of the three-dimensional theory of the stability of deformable bodies under the action of "following" loads. (Russian) **80h:73042**

Variational principles of the three-dimensional theory of stability of deformable bodies under the action of a "tracking" load. (Russian) **80h:73043**

Huseyin, K. *See* **Mandadi, V., 80c:73040**

Mandadi, V. (*with* Huseyin, K.) Nonlinear instability behaviour of nongradient systems. **80c:73040**

Švaiko, N. Ju. Complex loading and some questions of the stability of construction materials. (Russian) **80i:73036**

Tylikowski, A. Stability of a nonlinear rectangular plate. **80e:73041**

Zel'dič, E. I. *See* **Erlov, L. V., 80c:73040**

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Fosdick, Roger L. *See* **Dunn, J. Ernest, (80a:80004)**

Katsikadelis, J. T. *See* **Kounadis, A. N., (80m:73049)**

Kounadis, A. N. (*with* Katsikadelis, J. T.) On the discontinuity of the flutter load for various types of cantilevers. **(80m:73049)**

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73Jxx Aero- and hydroelasticity

73J05 Interaction of aerodynamics and elasticity

Secondary classifications:

Bhattacharya, S. *See* **Dey, S. K., (80i:73017)**

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Mansfield, E. H. On the deflexion of an anisotropic cantilever plate with variable rigidity. **(80i:73043)**

73J06 Interaction of hydrodynamics and elasticity

Armanjon, Paul Finite element analysis of moving loads on a floating ice sheet. **80c:73041**

Gutowski, Roman Stabilité des vibrations d'une poutre reposant sur une base élastique en tenant compte de la présence d'un liquide s'écoulant à l'intérieur. (English and German summaries) **80h:73040**

Holmes, Mark H. A spectral problem in hydroelasticity. **80i:73052**

73J10 Vibrations, flutter

Becker, M. (*with* Hauger, W.; Winzen, W.) Exact stability analysis of uniform cantilevered pipes conveying fluid or gas. (Polish and Russian summaries) **80g:73042**

Hauger, W. *See* **Becker, M.; et al., 80g:73042**

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73J15 Divergence

73J99 None of the above, but in this section

Hansen, Erik B. On a method of measuring diffusion coefficients of solid materials. (German summary) **80d:73077**

73Kxx Structural mechanics

Secondary classifications:

Brezzi, Franco Nonstandard finite elements for fourth-order elliptic problems. (80c:65098)

Kahn, Peter J. Counting types of rigid frameworks. (80m:51008)

73K05 Beams, columns, rods

Adali, Sarp Optimal shape and nonhomogeneity of a nonuniformly compressed column. 80i:73037

Aljavdin, P. V. Optimization of beams and plates on an elastic base according to the criterion of maximum rigidity. (Russian) 80f:73053

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Grossmayer, A. *See* **Rammerstorfer, F. G.; et al., 80g:73046**

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Approximate solution of a problem of bending an elastic rod. (Russian) 80d:73080

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73K10 Plates, discs

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Alekseeva, M. K. *See* **Kajuk, Ja. F., 80g:73048**

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Dhaliwal, Ranjit S. *See* **Khan, M. Saleem, 80d:73088**

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Levickiĭ, I. A. (*with* Tišina, L. V.) Application of variational methods for the approximate construction of the Green function in problems of bending of plates. (Russian) **80c:73048**

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(*with* Panteleev, A. D.) The Castigliano principle in problems of bending of plates of variable thickness. (Russian) **80f:73058**

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Okazaki, Katsutoshi *See* **Nagaya, Kosuke; et al., 80c:73050**

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Rubežanskiĭ, Ju. I. *See* **Litvinov, V. G., 80d:73092**

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Tielking, J. T. Asymmetric bending of annular plates. **80m:73053**

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Bressan, Sergio Integration of the elastostatic problem in the asymmetric case and with contact pairs. Application to the sheet problem. II. (Italian) **80e:73003**

Charlet, Philippe G. (*with* Kesavan, Srinivasan) Approximation bidimensionnelle du problème de valeurs propres pour une plaque. (English summary) **80k:35052**

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Litvinov, V. G. A problem of the optimal control of the natural frequency of a plate of variable thickness. (Russian) **80g:93046**

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73K12 Vibrations of beams, plates, etc.

Ohayon, Roger Homogénéisation par développements asymptotiques mixtes. Calcul des vibrations de milieux élastiques à structure périodique. (English summary) **80g:73052**

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73K15 Membranes, shells

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73K20 Composite structures and materials

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73K25 Finite element methods

Akay, H. U. An investigation of first and second order mixed plate-bending elements. **80m:73054**

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Miyoshi, Tetsuhiko (*with* Araki, Makoto) Remark on the unconditional stability of a finite element scheme for nonlinear plate problems. **80e:73051**
Ponter, A. R. S. (*with* Brown, P.) A finite element method for cyclically loaded creeping structure. **80i:73046**
Reddy, J. N. *See* **Satake, Akio, 80i:73047**
(Rodin, Ervin Y.) *See* **Energy methods in finite element analysis, 80d:73100**
Samuelsson, A. The global constant strain condition and the patch test. **80g:73054**
Satake, Akio (*with* Reddy, J. N.) A numerical method for elastic-plastic torsion by variational inequality. **80i:73047**
Schrefler, B. *See* **Wood, R. D., 80k:73056**
Seguchi, Yasuyuki (*with* Tada, Yukio) Shape determination problems of structures by inverse variational principle. The finite element formulation. **80d:73099**
Sörelde, T. H. *See* **Bergan, P. G.; et al., 80e:73049**
Tada, Yukio *See* **Seguchi, Yasuyuki, 80d:73099**
Taylor, Robert L. (*with* Zienkiewicz, O. C.) Complementary energy with penalty functions in finite element analysis. **80f:73063**
Warburton, G. B. The influence of the finite element method on developments in structural dynamics. **80h:73046**
Wood, R. D. (*with* Schrefler, B.) Geometrically nonlinear analysis—a correlation of finite element notations. **80k:73056**
Zienkiewicz, O. C. *See* **Taylor, Robert L., 80f:73063** *and* **Energy methods in finite element analysis, 80d:73100**
Energy methods in finite element analysis ★Energy methods in finite element analysis. **80d:73100**
Finite element analysis *See* **Energy methods in finite element analysis, 80d:73100**

Secondary classifications:

Oden, J. Tinsley (*with* Reddy, C. T.) Finite element approximations of a class of highly nonlinear boundary-value problems in finite elasticity. **(80d:73036)**
Rannacher, Rolf Nonconforming finite element methods for eigenvalue problems in linear plate theory. **(80i:65124)**
Reddy, C. T. *See* **Oden, J. Tinsley, (80d:73036)**

73K30 Other numerical methods

Argyris, John H. (*with* Johnsen, T. L.; Mlejnek, H.-P.) On accurate stress calculation in static and dynamic problems using the natural factor approach. **80f:73064**
Johnsen, T. L. *See* **Argyris, John H.; et al., 80f:73064**
Mlejnek, H.-P. *See* **Argyris, John H.; et al., 80f:73064**
Noor, Ahmed K. (*with* Peters, Jeanne M.) Nonlinear dynamic analysis of space trusses. **80m:73055**
Peters, Jeanne M. *See* **Noor, Ahmed K., 80m:73055**

73K35 Random excitation

Sobczyk, Kazimierz *See* **Witt, M., 80m:73056**
Taylor, Howard M. The time to failure of fiber bundles subjected to random loads. **80c:73054**
Witt, M. (*with* Sobczyk, Kazimierz) Dynamic response of laminated plates to random loading. **80m:73056**

73K40 Optimization

73K99 None of the above, but in this section

Antman, Stuart S. Multiple equilibrium states of nonlinearly elastic strings. **80i:73048**
Beh, L. P. *See* **Malkov, V. P.; et al., 80d:73103**
Bol'šakova, A. T. *See* **Malkov, V. P.; et al., 80d:73103**
(Brousse, Pierre) *See* **Structural optimization, 80h:73049**
Černous'ko, F. L. Problems of optimization of mechanical systems. (Russian. English summary) **80d:73101**
Dymitruk, Anna (*with* Muszyński, Jerzy) Damped vibrations of strings connected in a node. **80h:73047**
Fedock, Joseph J. *See* **Schreyer, Howard L., 80e:73056**
Frangopol, Dan Models for the reliability analysis of structural behaviour. **80i:73049**
Frolov, V. M. Optimization of an elastic system for several cases of loading by the method of the product of functionals of potential energy. (Russian) **80k:73057**
Hutzler, D. (*with* Planchard, J.) La méthode de Wittrick et Williams pour calculer les fréquences propres des structures élastiques. Application aux structures répétitives. (English summary) **80e:73052**
Iegi, É. M. A mathematical model of the problem of optimal design of systems of rods. (Russian) **80d:73102**
Liszka, T. (*with* Orkisz, J.) Application of the finite difference method at arbitrary irregular grids to solution of various problems of applied mechanics. **80x:73054**
Malkov, V. P. (*with* Beh, L. P.; Bol'šakova, A. T.) Acceleration of the search process for optimal thin-walled constructions. (Russian) **80d:73103**
Masur, E. F. (*with* Mróz, Z.) Nonstationary optimality conditions in structural design. **80e:73053**
Mikulski, Leszek *See* **Szefer, Gwidon, 80d:73105**
Mróz, Z. *See* **Szeląg, D., 80a:73056** *and* **Masur, E. F., 80e:73053**
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Niordson, Frithiof I. *See* **Olhoff, N., 80e:73054**
Olhoff, N. (*with* Taylor, J. E.) On optimal structural remodeling. **80h:73048**
(*with* Niordson, Frithiof I.) Some problems concerning singularities of optimal beams and columns. **80e:73054**
Osanov, G. G. (*with* Skubačevskiĭ, A. L.) Differential equations with deviating arguments in stationary problems of the mechanics of deformable bodies. (Russian) **80e:73055**
Orkisz, J. *See* **Liszka, T., 80a:73054**
Papuša, A. N. Dynamic interaction of a torsion-vibrational system with an actuator of bounded power. (Russian) **80d:73104**
Planchard, J. *See* **Hutzler, D., 80e:73052**
Prager, W. *See* **Rozvany, G. I. N., 80f:73065**
Rozvany, G. I. N. (*with* Prager, W.) A new class of structural optimization problems: optimal archgrids. **80f:73065**
Sadovský, Zoltán A theoretical approach to the problem of the most dangerous initial deflection shape in stability type structural problems. (Czech and Russian summaries) **80a:73055**
Schreyer, Howard L. (*with* Fedock, Joseph J.) Orthogonal base functions and consistent diagonal mass matrices for two-dimensional elements. **80e:73056**
Serrin, James *See* **Weinberger, H. F., 80d:73106**
Skubačevskiĭ, A. L. *See* **Osanov, G. G., 80e:73055**
Szabo, B. A. Some recent developments in finite element analysis. **80c:73055**
Szefer, Gwidon (*with* Mikulski, Leszek) Optimal design of rotating discs using Pontrjagin's maximum principle. (Polish. Russian and English summaries) **80d:73105**
Szeląg, D. (*with* Mróz, Z.) Optimal design of elastic beams with unspecified support conditions. (German and Russian summaries) **80a:73056**
Taylor, J. E. *See* **Olhoff, N., 80h:73048**
Tjurekhodžaev, A. N. On the question of determining the carrying ability of piles. (Russian. Kazakh summary) **80a:73057**
Weinberger, H. F. (*with* Serrin, James) Optimal shapes for brittle beams under torsion. (Russian summary) **80d:73106**
Zarsev, T. G. Calculation of structures of minimal weight and maximal rigidity in the presence of structural constraints. (Russian) **80k:73058**
Optimization *See* **Structural optimization, 80h:73049**
Structural optimization ★Structural optimization. **80h:73049**

Secondary classifications:

Černjavskiĭ, O. F. *See* **Gohfel'd, D. A.; et al., (80g:73002)**
Geradin, M. On the Lanczos method for solving large structural eigenvalue problems. **(80h:65022)**
Gohfel'd, D. A. (*with* Kononov, K. M.; Sadakov, O. S.; Černjavskiĭ, O. F.) Problems of the structural strength of thermally-stressed construction. (Russian) **(80g:73002)**
Kononov, K. M. *See* **Gohfel'd, D. A.; et al., (80g:73002)**
Reitman, M. I. (*with* Šapiro, G. S.) Optimal design of solid deformable bodies. (Russian) **(80g:73004)**
Sadakov, O. S. *See* **Gohfel'd, D. A.; et al., (80g:73002)**
Šapiro, G. S. *See* **Reitman, M. I., (80g:73004)**
(Sedov, L. I.) *See* **Mechanics of solid deformable bodies, (80d:73007)**
Whiteley, Walter Projective geometry and rigid buildings. **(80c:51018)**
Itogi Nauki i Tehniki *See* **Mechanics of solid deformable bodies, (80d:73007)**
Mechanics of solid deformable bodies ★Механика деформируемого твердого тела. Том 12. (Russian) [Mechanics of a solid deformable body. Vol. 12] **(80d:73007)**
Solid deformable bodies *See* **Mechanics of solid deformable bodies, (80d:73007)**

73Lxx Theory of shells

73L05 Non-Euclidean geometry, tensorial methods [See also 53A45.]

Destuynder, Philippe Théorème d'existence pour les modèles de membranes en théorie des coques. (English summary) **80i:73050**
Niordson, Frithiof I. A consistent refined shell theory. (Russian summary) **80k:73041**
Pelekh, B. L. ★Обобщенная теория оболочек. (Russian) [A generalized theory of shells] **80h:73042**
Valid, Roger An intrinsic formulation for the nonlinear theory of shells and some approximations. **80h:73043**

Secondary classifications:

Lapwood, E. R. (*with* Sato, Ryosuke) The pattern of eigenfrequencies of overtones of torsional oscillations of a layered spherical shell. **(80a:86001)**
Pogorelov, A. V. Buckling of cylindrical shells. (Russian) **(80k:73039)**
Sato, Ryosuke *See* **Lapwood, E. R., (80a:86001)**
Solodovnikov, V. N. Calculation of the gradients of some functionals and their application to optimization problems. (Russian) **(80a:49063)**

73L10 Anisotropic shells

Škutin, L. I. Exact formulation of equations of nonlinear deformation of thin shells. (Russian) **80h:73050**

73L15 Shell dynamics

Balenov, V. G. (*with* Ugodčikov, A. G.; Šinkarenko, A. P.) Numerical analysis of elastoplastic deformation of shells with curvilinear apertures under impulse loading. (Russian) **80f:73066**

Galeão, Augusto C. *See* **Loula, Abimael F., 80g:73055**

Gol'denveĭzer, A. L. Approximate methods of investigating the free vibrations of thin shells. **80e:73057**

Loula, Abimael F. (*with* Galeão, Augusto C.) Approximate calculation of the eigenvalues in the problem of free vibrations of cylindrical shells. (Portuguese) **80g:73055**

Šinkarenko, A. P. *See* **Balenov, V. G.; et al., 80f:73066**

Ugodčikov, A. G. *See* **Balenov, V. G.; et al., 80f:73066**

73L20 Vibrations of shells

Aslanjan, A. G. Formulas for the number of frequencies of axially symmetric rotations of a shell of revolution under various boundary conditions. (Russian) **80b:73044**

Feijóo, Raul A. (*with* Taroco, Edgardo; Raupp, Marco A.; Moura, Carlos A.) Approximate solutions of the problem of thin shells by the finite element method. (Spanish) **80f:73067**

Gol'denveĭzer, A. L. (*with* Lidskiĭ, V. B.; Tovstik, P. E.) ★Свободные колебания тонких упругих оболочек. (Russian) [Free oscillations of thin elastic shells] **80i:73051**

Kozarov, M. (*with* Mladenov, K.) The oscillations of elliptic cylindrical shells. (Bulgarian. Russian and English summaries) **80m:73057**

Lidskiĭ, V. B. *See* **Gol'denveĭzer, A. L.; et al., 80i:73051**

Mladenov, K. *See* **Kozarov, M., 80m:73057**

Moura, Carlos A. *See* **Feijóo, Raul A.; et al., 80f:73067**

Raupp, Marco A. *See* **Feijóo, Raul A.; et al., 80f:73067**

Taroco, Edgardo *See* **Feijóo, Raul A.; et al., 80f:73067**

Tovstik, P. E. *See* **Gol'denveĭzer, A. L.; et al., 80i:73051**

Secondary classifications:

Kozʹmina, E. S. Solvability of equations of nonlinear oscillations of cylindrical shells. (Russian) **(80m:73059)**

73L99 None of the above, but in this section

Abovskiĭ, N. P. (*with* Andreev, N. P.; Deruga, A. P.) ★Вариационные принципы теории упругости и теория оболочек. (Russian) [Variational principles of the theory of elasticity and the theory of shells] **80g:73056**

Andreev, N. P. *See* **Abovskiĭ, N. P.; et al., 80g:73056**

Antes, H. Duale komplementäre Variationsprinzipe in der linearen Schalentheorie. (English summary) **80k:73059**

Axman, Stuart S. The eversion of thick spherical shells. **80i:73052**

Babenko, V. I. Initial postcritical behavior of cylindrical shells under external pressure. **80i:73053**

Balenov, V. A. (*with* Guljaev, V. I.; Lizunov, P. P.) Nonclassical theory of shells and its applications. (Russian. Bulgarian and English summaries) **80m:73058**

See also **Guljaev, V. I.; et al., 80e:73059**

Biloocov, S. M. Investigation of the deformation of an elastic cylindrical shell under normal loading action. (Russian. English summary) **80f:73068**

Bogdanovič, A. E. (*with* Feldmane, È. G.) Solution in terms of displacement for the problem of nonlinear parametric oscillations of a cylindrical shell. (Russian) **80k:73051**

Bonadies, Manuelita (*with* Pastrone, Franco) Ordinary discontinuity waves in hyperelastic thin shells. (Italian. English summary) **80g:73057**

Bulja, N. P. General solution of differential elliptic type equations of sloping elastic shells. (Russian. Georgian and English summaries) **80d:73107**

Buzano, Ernesto Ellipticity of the linear model of Naghdi-Flügge-Lur'e-Byrne for elastic thin shells. (Italian summary) **80j:73030**

Some observations concerning the "ellipticity" of the linear model for Koiter shells. (Italian. English summary) **80h:73052**

Coutris, N. Théorème d'existence et d'unicité pour un problème d'équilibre de coque mince élastique. **80f:73069**

Deruga, A. P. *See* **Abovskiĭ, N. P.; et al., 80g:73056**

Ermolenko, V. M. (*with* Kornev, V. M.) Peculiarities of the spectrum in problems of the stability of cylindrical orthotropic shells. (Russian) **80g:73058**

Feldmane, È. G. *See* **Bogdanovič, A. E., 80h:73051**

Gjustner, A. F. On I. N. Vekua's consistent theory of shells. (Russian. Georgian and English summaries) **80c:73056**

Gol'dštein, Ju. B. (*with* Solomeščˇ, M. A.) Determination of the optimal form of rods and shells with the aid of a variational principle. (Russian) **80b:73045**

Green, A. E. (*with* Naghdi, P. M.) On thermal effects in the theory of shells. **80f:73070a**

(*with* Naghdi, P. M.) Corrigenda: "On thermal effects in the theory of shells" (Proc. Roy. Soc. London Ser. A **365** (1979), no. 1721, 161–190). **80f:73070b**

Grigoljuk, È. I. (*with* Kabanov, V. V.) ★Устойчивость оболочек. (Russian) [Stability of shells] **80e:73058**

Guljaev, V. I. (*with* Baženov, V. A.; Lizunov, P. P.) ★Неклассическая теория оболочек и ее приложение к решению инженерных задач. (Russian) [Nonclassical shell theory and its application to the solution of engineering problems] **80e:73059**

See also **Balenov, V. A.; et al., 80m:73058**

Gura, N. M. Shell of revolution of maximum stiffness in torsion. **80i:73054**

Kabanov, V. V. *See* **Grigoljuk, È. I., 80e:73058**

Klimov, V. S. The number of solutions to boundary value problems of the nonlinear theory of shells. (Russian) **80i:73055**

Kosmodʹiămiĭli, O. P. (*with* Lobžanidze, G. B.) On the solution of some boundary value problems for a variant of the theory of thin shells of variable thickness. (Russian. Georgian and English summaries) **80g:73059**

Kornev, V. M. *See* **Ermolenko, V. M., 80g:73058**

Kozʹmina, E. S. Solvability of equations of nonlinear oscillations of cylindrical shells. (Russian) **80m:73059**

Krużelecki, Jacek Some problems of optimal design of axially symmetric shells in the membrane state. (Polish. Russian and English summaries) **80d:73108**

Le Han' Čžu A static-geometric analogy. (Russian. English summary) **80e:73057**

Lizunov, P. P. *See* **Guljaev, V. I.; et al., 80e:73059** *and* **Balenov, V. A.; et al., 80m:73058**

Lobžanidze, G. B. *See* **Kosmodʹiămiĭli, O. P., 80g:73059**

Mazurkiewicz, Z. (*with* Nagórski, R.) On equations of net shells of revolution subjected to rotationally-symmetric loads. (Polish and Russian summaries) **80c:73058**

Medvedev, N. G. Solvability of problems in the theory of orthotropic noncircular cylindrical shells. (Russian. English summary) **80c:73059**

Melkadze, Z. A. (*with* Siharulidze, T. D.) Calculation of multiwave shallow cylindrical covering shells weakened by a very small circular aperture. (Russian. Georgian and English summaries) **80e:73060**

Morley, L. S. D. Note on a finite element stiffness formulation in shell theory. **80h:73053**

Mshiladze, G. G. On the calculation of shallow shells of double curvature on an elastic foundation. (Russian. Georgian and English summaries) **80e:73061**

Naghdi, P. M. *See* **Green, A. E., 80f:73070a** *and* **Green, A. E., 80f:73070b**

Nagórski, R. *See* **Mazurkiewicz, Z., 80c:73058**

Osadčuk, V. A. A criterion for the spreading of cracks on closed cylindrical shells. (Russian) **80k:73060**

Pastrone, Franco *See* **Bonadies, Manuelita, 80g:73057**

Paumier, J.-C. Solutions stables d'un problème simplifié de coque élastique. (English summary) **80b:73046**

Petraszkiewicz, W. Some relations of the nonlinear Reissner theory of shells. (Russian. English summary) **80e:73062**

Pietraszkiewicz, W. Consistent second approximation to the elastic strain energy of a shell. **80f:73056**

Puhlii, V. A. A method for the analytic solution of two-dimensional boundary value problems for systems of elliptic equations. (Russian) **80b:73047**

Rubežanskiĭ, Ju. I. Some inverse problems for cylindrical shells. (Russian) **80i:73057**

Siharulidze, T. D. *See* **Melkadze, Z. A., 80e:73060**

Šlafman, Š. M. *See* **Šlenev, M. A., 80f:73071**

Šlenev, M. A. (*with* Šlafman, Š. M.) Convergence of the finite element method in the nonlinear theory of oscillations of thin elastic shells, with the inertia of revolution taken into account. (Russian) **80f:73071**

Solomeščˇ, M. A. *See* **Gol'dštein, Ju. B., 80b:73045**

Talaslidis, D. On the convergence of a mixed finite element approximation for cylindrical shells. (German and Russian summaries) **80m:73060**

Teregulov, A. G. On the theory of the stability of thin shells. (Russian) **80k:73061**

Valid, Roger Le principe complémentaire en théorie non linéaire des coques. (English summary) **80m:73061**

Varpasuo, P. Incremental analysis of axisymmetric shallow shells with varying strain-displacement equations. **80m:73062**

Valakmadze, T. S. An investigation of Vekua's operator of the theory of elastic shells. (Russian) **80c:73060**

Secondary classifications:

Alekseeva, M. K. *See* **Kajuk, Ja. F., (80g:73048)**

Kajuk, Ja. F. (*with* Alekseeva, M. K.) The method of expansion with respect to a parameter in problems of the bending of flexible plates and shells. (Russian) **(80g:73048)**

Pidstrigač, Ja. S. (*with* Švec', R. M.) ★Термоупругость тонких оболочек. (Russian) [Thermoelasticity of thin shells] **(80d:73003)**

Švec', R. M. *See* **Pidstrigač, Ja. S., (80d:73003)**

73Mxx Fractural mechanics

73M05 Brittle fracture, cracks

Atsumi, A. *See* **Kumar, M., 80c:73064**

Awasthi, R. D. *See* **Kushwaha, P. S.; et al., 80k:73063**

Awasthi, S. N. *See* **Kushwaha, P. S., 80k:73064**

Bažant, Zdeněk P. (*with* Estenssoro, Luis F.) Surface singularity and crack propagation. **80d:73109**

Bell, J. C. Stresses from arbitrary loads on a circular crack. **80b:73048**

Bui, H. D. (*with* Van, K. Dang) Généralisation de la théorie de la rupture de Griffith. (English summary) **80c:73061**

Burgers, P. (*with* Freund, L. B.) Dynamic growth of an edge crack in a half space. **80m:73063**

Chen, S. H. *See* **Keer, L. M.; et al., 80d:73111**

Choudhary, Aratī *See* **Srivastava, K. N.; et al., 80d:73112**

Comninou, Maria *See* **Keer, L. M.; et al., 80d:73111**

Dahan, Marc Facteur d'intensité de contrainte pour un milieu infini transversalement isotrope avec fissure plane circulaire. (English summary) **80m:73064**

Dwivedi, A. P. *See* **Kushwaha, P. S.; et al., 80k:73063**

Estenssoro, Luis F. *See* **Bažant, Zdeněk P., 80d:73109**

Freund, L. B. *See* **Burgers, P., 80m:73063**

Gamble, Wikter (*with* Yamada, Yoshiaki) Crack tip singularity analysis by global-local model of large finite elements. (Russian summary) **80i:73058**

Gregory, R. D. The edge-cracked circular disc under symmetric pin-loading. **80f:73072**

Gurtin, Morton E. Thermodynamics and the Griffith criterion for brittle fracture. **80k:73062**

On the energy release rate in quasi-static elastic crack propagation. **80g:73060**

Gur', O. M. Stability of compressible plates under uniform side pressure. (Russian) **80d:73110**

Ioakimidis, Nikolaos I. (*with* Theocaris, Pericles S.) A curvilinear crack along the interface of two plane isotropic elastic media. **80a:73058**

(*with* Theocaris, Pericles S.) A system of curvilinear cracks in an isotropic elastic half-plane. (French summary) **80e:73063**

(*with* Theocaris, Pericles S.) A remark on the numerical evaluation of stress intensity factors by the method of singular integral equations. **80i:73059**

Kačanov, L. M. Crack growth under creep conditions. **80e:73062**

Kapilvil, O. O. A mixed axially symmetric problem for a finite elastic cylinder weakened by internal circular cuts. (Russian) **80c:73063**

Keer, L. M. (*with* Chen, S. H.; Comninou, Maria) The interface penny-shaped crack reconsidered. **80d:73111**

Kuliev, V. D. (*with* Sadyhov, A. È.) The Riemann problem for two pairs of functions and its application in elasticity theory. (Russian. English and Armenian summaries) **80f:73073**

The effect of symmetric branches at the end of a crack on its development. (Russian) **80i:73060**

Kumar, M. (*with* Atsumi, A.) External Griffith crack in transversely isotropic material. **80c:73064**

Kushwaha, P. S. (*with* Dwivedi, A. P.; Awasthi, R. D.) The stress intensity factor for a Griffith crack in a strip which is opened by the pressure applied at crack faces. **80k:73063**

(*with* Awasthi, S. N.) *n*-Griffin cracks in an elastic strip. **80k:73064**

Le Ponc, P. *See* **Miannay, D.; et al., 80h:73054**

Maiti, S. N. (*with* Misra, Jayadev) Effect of the presence of a crack on the thermal stresses in a long insulated cylinder. **80g:73061**

Miannay, D. (*with* Le Ponc, P.; Royer, J.; Tissot, J. M.) Approches de l'intégrale de Rice. **80h:73054**

Misra, Jayadev *See* **Maiti, S. N., 80g:73061**

Neuber, H. Korrelation von Mikro- und Makrospannungskonzentrationen am Beispiel des Risses in einer halbelliptischen Kerbe. **80f:73074**

Palaiya, R. M. *See* **Srivastava, K. N.; et al., 80d:73112**

Rabotnov, Ju. N. (*with* Zobnin, A. I.) A kinetic model of the propagation of a crack in polymer materials. (Russian) **80c:73065**

Royer, J. *See* **Miannay, D.; et al., 80h:73054**

Sadyhov, A. È. *See* **Kuliev, V. D., 80f:73073**

Sobczyk, Kazimierz On the stochastic model for fatigue crack propagation. (Russian summary) **80m:73065**

Spencer, A. J. M. On the stress intensity factor for a crack in a highly anisotropic plate. **80k:73065**

Srivastava, K. N. (*with* Choudhary, Arati; Palaiya, R. M.) Mellin transform technique for solving Griffith crack problem at the interface of two bonded dissimilar wedges. **80d:73112**

Theocaris, Pericles S. *See* **Ioakimidis, Nikolaos I., 80a:73058; Ioakimidis, Nikolaos I., 80e:73063** *and* **Ioakimidis, Nikolaos I., 80f:73059**

Tissot, J. M. *See* **Miannay, D.; et al., 80h:73054**

Van, K. Dang *See* **Bui, H. D., 80c:73061**

Yamada, Yoshiaki *See* **Gambin, Wiktor, 80i:73058**

Zobnin, A. I. *See* **Rabotnov, Ju. N., 80c:73065**

Secondary classifications:

Huy Duong Bui (*with* Putot, Claude) Formulation, par équations intégrales, du problème d'une fissure plane débouchante à la surface libre. (English summary) **(80e:45004)**

Maz'ja, V. G. (*with* Morozov, N. F.; Plamenevskiĭ, B. A.) The stressed-strained state in the neighborhood of a crack apex at nonlinear bending of a plate. (Russian) **(80g:35121)**

Morozov, N. F. *See* **Maz'ja, V. G.; et al., (80g:35121)**

Osadčuk, V. A. A criterion for the spreading of cracks on closed cylindrical shells. (Russian) **(80k:73060)**

Plamenevskiĭ, B. A. *See* **Maz'ja, V. G.; et al., (80g:35121)**

Poddar, S. N. Stress intensity factors for two coplanar Griffith cracks in an infinitely long elastic strip, perpendicular to the edges of the strip, for any variable distribution of pressure. **(80b:73089)**

Putot, Claude *See* **Huy Duong Bui, (80e:45004)**

Trąpczowski, A. The asymptotic motion of the concentrated defect. (Polish and Russian summaries) **(80i:73063)**

73M10 Fatigue

Il'ičev, V. D. Application of spectral summation of fatigue defects in the complex-stressed state of a structure. (Russian) **80k:73066**

73M15 Ductile fracture

Ch'ên, Wên Hua The application of finite element method to elastic-plastic fracture mechanics. (Chinese summary) **80d:73113**

73M20 Material instability

Martynenko, M. A. (*with* Ulitko, A. F.) Stress condition near the top of a spherical cut in an infinitely elastic medium. (Russian) **80b:73049**

Ulitko, A. F. *See* **Martynenko, M. A., 80b:73049**

73M99 None of the above, but in this section

(Burridge, Robert) *See* **Fracture mechanics, 80e:73064**

Fracture mechanics ★Fracture mechanics. **80e:73064**

New York *See* **Fracture mechanics, 80e:73064**

SIAM-AMS Proceedings *See* **Fracture mechanics, 80e:73064**

Symposium:

SIAM-AMS, Applied Mathematics *See* **Fracture mechanics, 80e:73064**

Secondary classifications:

Choudhary, Arati *See* **Srivastava, K. N.; et al., (80h:45004)**

Palaiya, R. M. *See* **Srivastava, K. N.; et al., (80h:45004)**

Srivastava, K. N. (*with* Palaiya, R. M.; Choudhary, Arati) Solution of certain simultaneous multiple integral equations involving inverse Mellin transforms. **(80h:45004)**

73Nxx Geophysical solid mechanics [See also 86–XX.]

73N05 Global dynamics

Secondary classifications:

Grafarend, E. (*with* Hauer, K.) The equilibrium figure of the earth. I. **(80a:86004)**

Hauer, K. *See* **Grafarend, E., (80a:86004)**

73N10 Earthquake problems

73N99 None of the above, but in this section

Secondary classifications:

Thom, René Tectonique des plaques et théorie des catastrophes. (English summary) **(80m:58010)**

73Pxx Biomechanics of solids

73P05 Mathematical models of biological materials

Secondary classifications:

Cobelli, C. (*with* Morato, L. M.) On the identification by filtering techniques of a biological *n*-compartment model in which the transport rate parameters are assumed to be stochastic processes. **(80a:92012)**

Morato, L. M. *See* **Cobelli, C., (80a:92012)**

73P10 Mechanics response

73P99 None of the above, but in this section

Rath, H. J. Ein Beitrag zur Berechnung einer peristaltischen Strömung in elastischen Leitungen. (English summary) **80a:73059**

73Q05 Soil mechanics

Cowin, Stephen C. *See* **Mehrabadi, M. M., 80m:73066**

Mehrabadi, M. M. (*with* Cowin, Stephen C.) Initial planar deformation of dilatant granular materials. **80m:73066**

Nogi, Tatsuo (*with* Ohwaki, Hiroshi) A consolidation problem and its solution. **80d:73114**

Ohwaki, Hiroshi *See* **Nogi, Tatsuo, 80d:73114**

Secondary classifications:

Galimov, K. Z. *See* **Garifullin, F. A., (80h:76003)**

Garifullin, F. A. (*with* Galimov, K. Z.) The power method in the theory of convective stability of a non-Newtonian fluid. (Russian) **(80h:76003)**

Lodge, A. S. (*with* McLeod, J. B.; Nohel, John A.) A nonlinear singularly perturbed Volterra integro-differential equation occurring in polymer rheology. **(80f:45017)**

McLeod, J. B. *See* **Lodge, A. S.; et al., (80f:45017)**

Nohel, John A. *See* **Lodge, A. S.; et al., (80f:45017)**

73R05 Electromagnetic elasticity

Agarwal, V. K. On electromagneto-thermoelastic plane waves. (German summary) **80m:73067**

Agranovič, Z. S. (*with* Derevjanko, N. I.) Bending of rods by the action of an external magnetic field. (Russian) **80f:73075**

Alblas, J. B. A general theory of magneto-elastic stability. (Russian summary) **80a:73069**

Chen, P. J. (*with* Peercy, P. S.) One-dimensional dynamic electromechanical constitutive relations of ferroelectric materials. (German summary) **80b:73050**

Chowdhury, K. L. *See* **Glockner, P. G., 80c:73066**

Derevjanko, N. I. *See* **Agranovič, Z. S., 80f:73075**

Donato, Andrea (*with* Fusco, Domenico) The propagation of waves of discontinuities compatible with a completely nonlinear magnetoelastic model. (Italian. English summary) **80i:73061**

Esposito, Raffaele On the utilization of angular momentum balance principle in the relativistic theory of magnetothermoelastic continua. (Italian summary) **80d:73115**

Fusco, Domenico *See* **Donato, Andrea, 80i:73061**

Glockner, P. G. (*with* Chowdhury, K. L.) Non-linear compatibility equations and Bianchi-type identities for elastic dielectrics. (French and German summaries) **80c:73066**

Gupta, D. P. (*with* Soni, B. R.) On magnetothermoelastic waves in asymmetric elastic medium. (Russian summary) **80j:73031**

Horošun, L. P. (*with* Maslov, B. P.) Foundations of a theory for predicting electromechanical properties of inhomogeneous piezoelectrics. (Russian) **80i:73062**

Kudrjavcev, B. A. The mechanics of piezoelectric materials. (Russian) **80e:73065**
Loĭkin, V. M. (*with* Oleĭnik, L. N.) Elastic equilibrium of a piezoelectric cylindrical body with arbitrary anisotropy. (Russian) **80d:73116**
Majorkowska-Knap, Krystyna Dynamical problems of thermo-piezoelectricity. (Russian summary) **80k:73067**
Maslov, B. P. *See* Horoškin, L. P., **80k:73062**
Maugin, Gérard A. Vectorial internal variables in magnetoelasticity. (French summary) **80j:73032**
McCarthy, M. F. (*with* Tiersten, H. F.) The growth of wave discontinuities in piezoelectric semiconductors. **80k:73068**
Mindlin, R. D. A variational principle for the equations of piezoelectromagnetism in a compound continuum. (Russian summary) **80a:73061**
Oleĭnik, L. N. *See* Loĭkin, V. M., **80d:73116**
Peercy, P. S. *See* Chen, P. J., **80b:73050**
Soni, B. R. *See* Gupta, D. P., **80j:73031**
Tiersten, H. F. *See* McCarthy, M. F., **80k:73068**

Secondary classifications:

Boulanger, Philippe Contribution à l'électrodynamique des continus élastiques et viscoélastiques. **(80m:73024)**

73Sxx Micromechanics of solids

73S05 Dislocation theory

73S99 Other micromechanics

Mišica, M. Dual mechanics and applications in the theory of continuum media. I. **80a:73062**
Sztyren, Małgorzata On the boundary forces in a solvable integral model of nonlocal elastic half-space. (Russian summary) **80a:73063**
Trzęsowski, A. The asymptotic motion of the concentrated defect. (Polish and Russian summaries) **80l:73063**

73T05 Contact problems

Aboudi, Jacob A numerical solution to the problem of dynamic indentation of an elastic plate by a rigid punch. **80a:73064**
The dynamic contact with perfect adhesion and frictional slip between a rigid indentor and an elastic half-space. (German summary) **80m:73068**
Agnović, Ibrahim (*with* Veselić, Krešimir) On a singular contact problem for two-dimensional Laplace equation. (French summary) **80c:73067**
Alblas, J. B. *See* Pauwelussen, J. P., **80m:73069**
Aleksandrov, V. M. (*with* Kudiš, I. I.) Asymptotic analysis of plane and axisymmetric contact problems with allowance for surface structure of interacting bodies. **80g:73062**
Amenzade, Ju. A. The stamping of a rigid punch on a layer soldered to a half-plane. (Russian) **80l:73064**
Babeško, V. A. (*with* Rumjancev, A. N.) Vibrations of a stamp adhering to an elastic layer over part of its surface. **80k:73069**
Babickiĭ, V. I. ★Теория виброударных систем. (Russian) [Theory of vibroshock systems] **80d:73117**
Barber, J. R. Adhesive contact during the oblique impact of elastic spheres. (French summary) **80k:73070**
Bakeleĭvili, M. O. Some contact boundary problems for a multilayer transversally-isotropic plate and a half-plane. (Russian. Georgian and English summaries) **80f:73076**
Dahan, Marc Poinçons axisymétriques rigides sur un massif élastique semi-infini transversalement isotrope. (English summary) **80l:73065**
Gačečiladze, R. I. (*with* Maisaia, O. I.) A study of some fundamental contact boundary problems of statics of elasticity theory and the moment theory of elasticity. (Russian. Georgian and English summaries) **80d:73118**
Galahov, M. A. (*with* Gusjatnikov, P. B.) Correctness of a one-dimensional isothermal problem of contact hydrodynamics. (Russian) **80c:73068**
Gladwell, G. M. L. (*with* Gupta, O. P.) On the approximate solution of elastic contact problems for a circular annulus. **80k:73071**
Gupta, O. P. *See* Gladwell, G. M. L., **80k:73071**
Gusjatnikov, P. B. *See* Galahov, M. A., **80c:73068**
Hughes, B. D. (*with* White, L. R.) "Soft" contact problems in linear elasticity. **80k:73072**
Kovalenko, E. V. An effective method of solving contact problems for a linear-deformed basis with a thin reinforcing covering. (Russian. English and Armenian summaries) **80f:73077**
Kudiš, I. I. *See* Aleksandrov, V. M., **80g:73062**
Maisaia, O. I. *See* Gačečiladze, R. I., **80d:73118**
Martirosjan, Z. A. The axially symmetric contact problem for two cylinders. (Russian. English and Armenian summaries) **80f:73078**
Minasjan, A. F. *See* Tonojan, V. S., **80l:73066**
Panagiotopoulos, P. D. (*with* Zastrow, U.) An integral "equation" approach to the unilateral contact problem. **80k:73073**
Pauwelussen, J. P. (*with* Alblas, J. B.) The indentation of an elastic layer by a rigid stamp under conditions of complete adhesion. (German summary) **80m:73069**
Rumjancev, A. N. *See* Babeško, V. A., **80k:73069**
Stańczak, Romuald A contact problem in the theory of elasticity. **80e:73066**
Theocaris, Pericles S. Experimental study of plane elastic contact problems by the pseudocaustics method. **80h:73055**
Tonojan, V. S. (*with* Minasjan, A. F.) A contact problem for an elastic composite half-plane. (Russian. Armenian and English summaries) **80l:73066**
Travkin, Ju. I. A system of double trigonometric series and its applications to the solution of contact problems in elasticity theory. (Russian) **80k:73056**
Valedinskiĭ, V. D. The solution to the problem of the contact of elastic and incompressible media. (Russian) **80j:73033**
Vatul'ian, A. O. The action of a rigid punch on an orthotropic layer. (Russian. Armenian and English summaries) **80l:73067**
Veselić, Krešimir *See* Agnović, Ibrahim, **80c:73067**
Villaggio, Piero An elastic theory of Coulomb friction. **80k:73068**
White, L. R. *See* Hughes, B. D., **80k:73072**
Zastrow, U. *See* Panagiotopoulos, P. D., **80k:73073**

Secondary classifications:

Guljan, K. G. *See* Mhitarjan, S. M., **(80d:73093)**
Mhitarjan, S. M. (*with* Guljan, K. G.) On the solution of two contact problems for a wedge with elastic stiffeners. (Russian. Armenian and English summaries) **(80d:73093)**

73U05 Thermomechanics of solids [See also 73B30.]

Acharya, D. *See* Sengupta, P. R., **80l:73070**
Addy, Sushil Kumar *See* Dey, Sukhendu, **80m:73071**
Agarwal, V. K. On plane waves in generalized thermoelasticity. (German summary) **80c:73067**
Amendola, Giovambattista The problem of an excited layer for incompressible thermoelastic materials. (Italian summary) **80k:73057**
Basilašvili, M. V. Matrices for the fundamental and singular solutions of equations in two-dimensional elastothermal diffusion theory. (Russian. Georgian and English summaries) **80e:73068**
Beluašvili, Ju. A. The solvability of certain 3-dimensional problems of dynamic thermo-elasticity. (Russian) **80a:73065**
Bučukuri, T. V. Fundamental boundary value problems of oscillation of moment thermoelasticity with allowance for diffusion. (Russian. Georgian and English summaries) **80e:73069**
Fundamental boundary value problems of oscillation theory for a thermoelastic body with account taken of diffusion. (Russian. Georgian and English summaries) **80d:73119**
Burčuladze, T. V. Properties of the parameter of thermodiffusion theory. (Russian. Georgian and English summaries) **80f:73079**
Chadwick, P. (*with* Creasy, C. F. M.) Weak nonlinear waves in homogeneoualy deformed heat-conducting elastic materials. **80m:73070**
Crăciun, Ion Al. Green formula for an infinite domain with a cavity and integral representation of a regular solution in micropolar thermoelasticity. (Romanian summary) **80a:73066**
Creasy, C. F. M. *See* Chadwick, P., **80m:73070**
Dey, Sukhendu (*with* Addy, Sushil Kumar) Rayleigh waves in a thermoelastic half-space under initial stresses. **80m:73071**
Dobruškin, V. A. *See* Gaiduk, S. I., **80l:73069**
Gaiduk, S. I. (*with* Dobruškin, V. A.) Solution of a problem in the theory of thermoelasticity related to mechanical and thermal impacts. (Russian) **80l:73069**
Gordeziani, D. G. ★О численном решении некоторых задач термоупругости. (Russian) [A numerical solution to certain problems of thermoelasticity] **80e:73070**
Green, A. E. (*with* Naghdi, P. M.) On thermal effects in the theory of rods. **80k:73074**
Grysa, Krzysztof (*with* Szczepański, Ryszard) A plane quasistatic problem of thermodiffusion for an elastic circular cylinder. (Polish. Russian and English summaries) **80d:73120**
Horie, T. *See* Tanaka, K.; et al., **80c:73070**
Jentsch, Lothar Thermoelastostatik stückweise homogener Körper mit gleitenden Einschlüssen. **80k:73058**
Joulak, Habib Sur un théorème d'existence et d'unicité applicable à certains problèmes de diffraction dans un domaine extérieur. Développement en série de la solution. (English summary) **80m:73072**
Kibal'nikova, S. I. *See* Martinović, T. L., **80d:73122**
Kirazov, P. *See* Marinov, Penčo, **80c:73071**
Kulik, A. N. (*with* Mikitin, M. I.) A quasistatic problem of thermoelasticity for a semi-infinite plate that is heated along its lateral surface by a linear moving heat source. (Russian) **80d:73121**
Marinov, Penčo (*with* V"leva, V"rbinka) Thermoelastic behavior of two-continuum in a small deformation field. (Bulgarian. English summary) **80m:73073**
(*with* Kirazov, P.) On the propagation of thermoelastic waves in a semi-infinite medium. (Bulgarian and Russian summaries) **80c:73071**
Martinović, T. L. (*with* Kibal'nikova, S. I.) Solution of a planar problem of static thermoelasticity for an anisotropic body with a cavity in the presence of a given heat flux density on its surface. (Russian) **80d:73122**
Mikitin, M. I. *See* Kulik, A. N., **80d:73121**
Molinari, Alain Thermoélasticité dynamique: un demi-espace soumis à un échelon de flux thermique. (English summary) **80d:73123**
Réponse dynamique d'un demi-espace thermoélastique à un dépôt d'énergie. (English summary) **80k:73075**
Naghdi, P. M. *See* Green, A. E., **80k:73074**
Nowacki, Witold Coupled fields in the mechanics of solids. (Russian. English summary) **80c:73069**
See also **Thermomechanics in solids, 80c:73072**
Nowinski, J. L. ★Theory of thermoelasticity with applications. **80g:73063**
Sekiya, T. *See* Tanaka, K.; et al., **80c:73070**
Sengupta, P. R. (*with* Acharya, D.) The influence of gravity on the propagation of waves in a thermo-elastic layer. **80l:73070**
Shindo, Yasuhide *See* Tomita, Sadahiro, **80m:73074**
(Sneddon, I. N.) *See* **Thermomechanics in solids, 80c:73072**
Szczepański, Ryszard *See* Grysa, Krzysztof, **80d:73120**
Tanaka, K. (*with* Horie, T.; Sekiya, T.) Mean temperature field variations in

heterogeneous media. (German summary) **80c:73070**

Tomita, Sadahiro (*with* Shindo, Yasuhide) Thermoelastic Rayleigh waves with thermal relaxation in the magnetic field normal to the surface. (Russian summary) **80m:73074**

Val'kovskaja, V. I. Disconnected quasistatic random thermoelastic fields in thin-walled elements. (Russian) **80m:73075**

V"leva, V"rbinka *See* **Marinov, Pesčo, 80m:73073**

Symposium:

Thermomechanics in Solids *See* **Thermomechanics in solids, 80c:73072**

Thermomechanics in solids ★Thermomechanics in solids. **80c:73072**

Udine *See* **Thermomechanics in solids, 80c:73072**

Secondary classifications:

Agarwal, V. K. On electromagneto-thermoelastic plane waves. (German summary) **(80m:73067)**

Dogotar', V. N. (*with* Lenjuk, M. P.) General temperature fields in solid symmetric homogeneous bodies. (Russian. English summary) **(80f:80003)**

Lenjuk, M. P. *See* **Dogotar', V. N., (80f:80003)**

Pidstrigač, Ja. S. (*with* Švec', R. M.) ★Термоупругость тонких оболочек. (Russian) [Thermoelasticity of thin shells] **(80d:73003)**

Šilhavý, Miroslav How many constitutive functions are necessary to determine a thermoelastic material? **(80f:73002)**

Švec', R. M. *See* **Pidstrigač, Ja. S., (80d:73003)**

76–XX FLUID MECHANICS (For general continuum mechanics, see 73Bxx, or other parts of 73–XX.)

76–01 Elementary exposition, textbooks

76–02 Advanced exposition (research surveys, monographs, etc.)

(Bondarev, È. A.) *See* **Methods in continuum mechanics, 80m:76001**

Chung, T. J. ★Finite element analysis in fluid dynamics. **80a:76001**

Krause, Egon Remarks on computations of viscous flows. **80g:76001**

(Ohlopkov, N. M.) *See* **Methods in continuum mechanics, 80m:76001**

(Paukonov, V. M.) *See* **Numerical methods in continuum mechanics, 80k:76001**

(Rozljakov, G. S.) *See* **Numerical methods in continuum mechanics, 80k:76001**

Samarskiĭ, A. A. On numerical simulation in fluid dynamics. **80k:76001**

Temam, Roger Some finite element methods in fluid flow. **80i:76001**

Continuum mechanics *See* **Numerical methods in continuum mechanics, 80k:76001** *and* **Methods in continuum mechanics, 80m:76001**

Methods in continuum mechanics ★Методы механики сплошной среды. (Russian) [Methods in continuum mechanics] **80m:76001**

Numerical methods in continuum mechanics ★Численные методы в механике сплошных сред. (Russian) [Numerical methods in continuum mechanics] **80k:76001**

76–03 Historical (must also be assigned at least one classification number from Section 01)

76–04 Explicit machine computation and programs (not the theory of computation or programming)

76–05 Experimental papers

76–06 Proceedings, conferences, etc.

(Burstein, Samuel Z.) *See* **Lectures: Combustion theory, 80b:76001**

(Cabannes, Henri) *See* **Conference: Numerical Methods in Fluid Dynamics, 80g:76002**

(Förste, Joachim) *See* **Tagung: Strömungsmechanik, 80m:76002**

(Holt, Maurice) *See* **Conference: Numerical Methods in Fluid Dynamics, 80g:76002**

(Lax, Peter D.) *See* **Lectures: Combustion theory, 80b:76001**

(Lumley, John L.) *See* **Annual review of fluid mechanics, 80d:76001**

(Rusanov, V. V.) *See* **Conference: Numerical Methods in Fluid Dynamics, 80g:76002**

(Smolderen, J. J.) *See* **Numerical methods in fluid dynamics, 80e:76002**

(Sod, Gary A.) *See* **Lectures: Combustion theory, 80b:76001**

(Van Dyke, Milton) *See* **Annual review of fluid mechanics, 80d:76001**

(Wehausen, J. V.) *See* **Annual review of fluid mechanics, 80d:76001**

(Wirz, Hans Jochen) *See* **Numerical methods in fluid dynamics, 80e:76002**

Acoustic propagation *See* **Journées: Études sur la Propagation Acoustique, 80e:76001**

Annual review of fluid mechanics ★Annual review of fluid mechanics. Vol. 11. **80d:76001**

Boundary value problems *See* **Mixed boundary value problems in fluid dynamics, 80f:76001**

Combustion theory *See* **Lectures: Combustion theory, 80b:76001**

Conference:

Numerical Methods in Fluid Dynamics ★Sixth International Conference on Numerical Methods in Fluid Dynamics. **80g:76002**

Fluid dynamics *See* **Numerical methods in fluid dynamics, 80e:76002; Mixed boundary value problems in fluid dynamics, 80f:76001; Statistical fluid dynamics, 80f:76002** *and* **Conference: Numerical Methods in Fluid Dynamics, 80g:76002**

Fluid mechanics *See* **Annual review of fluid mechanics, 80d:76001** *and* **Tagung: Strömungsmechanik, 80m:76002**

Journées:

Études sur la Propagation Acoustique ★Journées d'Études sur la Propagation Acoustique. **80e:76001**

Kyoto *See* **Mixed boundary value problems in fluid dynamics, 80f:76001; Statistical fluid dynamics, 80f:76002** *and* **Turbulence and Navier-Stokes equations, 80m:76003**

Lectures:

Combustion theory ★Lectures on combustion theory. **80b:76001**

Magdeburg *See* **Tagung: Strömungsmechanik, 80m:76002**

Marseille *See* **Journées: Études sur la Propagation Acoustique, 80e:76001**

Mixed boundary value problems in fluid dynamics ★Mixed boundary value problems in fluid dynamics. (Japanese) **80f:76001**

Navier-Stokes equations *See* **Turbulence and Navier-Stokes equations, 80m:76003**

New York *See* **Lectures: Combustion theory, 80b:76001**

Numerical methods in fluid dynamics ★Numerical methods in fluid dynamics. **80e:76002**

See also **Conference: Numerical Methods in Fluid Dynamics, 80g:76002**

Statistical fluid dynamics ★Statistical fluid dynamics. (Japanese) **80f:76002**

Symposium:

Mixed Boundary Value Problems in Fluid Dynamics *See* **Mixed boundary value problems in fluid dynamics, 80f:76001**

Statistical Fluid Dynamics *See* **Statistical fluid dynamics, 80f:76002**

Turbulence and Navier-Stokes equations *See* **Turbulence and Navier-Stokes equations, 80m:76003**

Tagung:

Strömungsmechanik ★Strömungsmechanik. **80m:76002**

Tbilisi *See* **Conference: Numerical Methods in Fluid Dynamics, 80g:76002**

Turbulence and Navier-Stokes equations ★Turbulence and Navier-Stokes equations. (Japanese) **80m:76003**

Secondary classifications:

(Bradshaw, Peter) *See* **Turbulence, (80d:76044)**

(Fiedler, Helmrich) *See* **Structure and mechanisms of turbulence, (80h:76021a)** *and* **Structure and mechanisms of turbulence, (80h:76021b)**

(Whiteman, John Robert) *See* **Mathematics of finite elements and applications, (80k:65005)**

Berlin *See* **Structure and mechanisms of turbulence, (80h:76021a)** *and* **Structure and mechanisms of turbulence, (80h:76021b)**

Conference:

MAFELAP *See* **Mathematics of finite elements and applications, (80k:65005)**

Finite elements *See* **Mathematics of finite elements and applications, (80k:65005)**

Mathematics of finite elements and applications ★The mathematics of finite elements and applications. III. **(80k:65005)**

Structure and mechanisms of turbulence ★Structure and mechanisms of turbulence. I. **(80h:76021a)**

★Structure and mechanisms of turbulence. II. **(80h:76021b)**

Symposium:

Turbulence *See* **Structure and mechanisms of turbulence, (80h:76021a)** *and* **Structure and mechanisms of turbulence, (80h:76021b)**

Turbulence ★Turbulence. **(80d:76044)**

See also **Structure and mechanisms of turbulence, (80h:76021a)** *and* **Structure and mechanisms of turbulence, (80h:76021b)**

Uxbridge *See* **Mathematics of finite elements and applications, (80k:65005)**

76Axx Foundations, constitutive equations, rheology [See also 35L65.]

Secondary classifications:

Aris, Rutherford ★Mathematical modelling techniques. **(80b:00008)**

76A02 Foundations

Bovet, D. Le double-emploi de la vitesse en hydrodynamique. **80i:76002**

Moreau, J. J. Mathematical comparison of three alternative laws for linear viscosity. **80k:76002**

Secondary classifications:

Saltanov, M. V. The variational principle for multicomponent magnetic hydrodynamics based on a generalization of the Clebsch transformation. (Russian) **(80g:76053)**

76A05 Non-Newtonian fluids

Aggarwala, B. D. *See* **Ariel, P. D., 80m:76005**

Ahmadi, Goodarz Special theories of heat conducting microfluids. (Russian summary) **80m:76004**

See also **Shahinpoor, M., 80g:76003**

Ariel, P. D. (*with* Aggarwala, B. D.) Rayleigh-Taylor instability of a Maxwell's fluid. (Polish and Russian summaries) **80m:76005**

Beavers, G. S. *See* **Yoo, Jung Y.; et al., 80k:76006**

Blanschong, Georges-Philippe (*with* Hartmann, Christian) Étude numérique d'un mouvement de fluide micropolaire en présence de particules orientables. (English summary) **80k:76003**

Bychawski, Zbigniew (*with* Hnat, Jan) A variational criterion of material stability for nonlinear rheological media. (Russian summary) **80i:76003**

Bytev, V. O. Structure of the stress tensor of a purely mechanical continuum. (Russian) **80j:76001**

Fetecău, C. Non-steady helical flows of heat conducting simple fluids with memory. **80f:76003**

Fosdick, Roger L. (*with* Rajagopal, K. R.) Anomalous features in the model of "second order fluids". **80h:76002**

Galimov, K. Z. *See* **Garifullin, F. A., 80h:76003**

Garifullin, F. A. (*with* Galimov, K. Z.) The power method in the theory of convective stability of a non-Newtonian fluid. (Russian) **80h:76003**

Gupta, Mukesh (*with* Kant, Ravi; Sharma, H. S.) Unsteady Hele-Shaw flow of non-Newtonian fluid. **80b:76002**

Hartmann, Christian *See* **Blanschong, Georges-Philippe, 80k:76003**

Hnat, Jan *See* **Bychawski, Zbigniew, 80f:76003**
Joseph, Daniel D. *See* **Yoo, Jung Y.; et al., 80k:76006**
Jou, D. (*with* Perez-Garcia, C.; Rubi, J. M.) Variational solutions for the two-stream mixing of power-law fluids. **80m:76006**
Kant, Ravi *See* **Gupta, Mukesh; et al., 80b:76002**
Kapur, V. K. *See* **Yadav, J. S., 80m:76007**
Marris, A. W. Steady universal motions of Rivlin-Ericksen fluids. **80h:76004a**
See also **Wang, Chao Chen, 80h:76004b**
Nachman, A. (*with* Taliaferro, Steven) Mass transfer in boundary layers for power law fluids. **80c:76001**
Nunziato, Jace W. On stress power and boundedness of flows of incompressible second-order fluids. (German summary) **80c:76002**
Perez-Garcia, C. *See* **Jou, D.; et al., 80m:76006**
Rajagopal, K. R. *See* **Foudick, Roger L., 80b:76002**
Rallison, J. M. The role of rigidity constraints in the rheology of dilute polymer solutions. **80f:76004**
Ricci Bassetti, Antonietta Generalization of a uniqueness theorem that is valid for a particular non-Stokes fluid. (Italian) **80c:76003**
Růža, Pavel Theory of mixtures for microfluids. **80f:76005**
Rosenblat, S. *See* **Secomb, T. W., 80k:76004**
Rubi, J. M. *See* **Jou, D.; et al., 80m:76006**
Sansone, Emilia Derivation of the theory of Maxwellian fluids within the framework of thermodynamics of continua. (Italian) **80d:76002**
Sava, Valeriu A. The initial-boundary-value problems in the theory of micropolar fluids. (German and Russian summaries) **80a:76002**
Secomb, T. W. (*with* Rosenblat, S.) Torsional oscillations of a non-Newtonian fluid with a free surface. **80k:76004**
Sen, Swapan Kumar A note on the oscillatory motion of Rivlin-Ericksen fluid between two co-axial circular cylinders. **80k:76005**
Shahinpoor, M. (*with* Ahmadi, Goodarz) Universal stability of thermo-Cosserat fluid motions. (Italian summary) **80g:76003**
Sharma, H. S. *See* **Gupta, Mukesh; et al., 80b:76002**
Sra, K. S. The combined generalized measure approach to the study of some steady laminar flows of viscoelastic fluids that exhibit pseudoplasticity. **80j:76002**
Taliaferro, Steven *See* **Nachman, A., 80c:76001**
Wang, Chao Chen (*with* Marris, A. W.) Proof that motions obtained in the preceding paper by Marris are universal for all incompressible isotropic simple materials. **80h:76004b**
Yadav, J. S. (*with* Kapur, V. K.) The simultaneous effects of thermal and inertia on the performance of non-Newtonian squeeze films. **80m:76007**
Yoo, Jung Y. (*with* Joseph, Daniel D.; Beavers, G. S.) Higher-order theory of the Weissenberg effect. **80k:76006**

76A10 Viscoelastic fluids

Balagondar, P. M. *See* **Siddappa, B., 80g:76004**
Chaudhury, T. K. On swimming in a viscoelastic liquid. **80k:76007**
Dognon, M. *See* **Ravey, J. C.; et al., 80m:76008**
Lucius, M. *See* **Ravey, J. C.; et al., 80m:76008**
Petrie, Chris J. S. ★Elongational flows. **80f:76006**
Ravey, J. C. (*with* Dognon, M.; Lucius, M.) Transient rheology in a new type of Couette apparatus. I. Theoretical study with Newtonian fluids. **80m:76008**
Siddappa, B. (*with* Balagondar, P. M.) Flow due to a sudden stoppage of moving bodies in a Rivilin-Ericksen viscoelastic fluid. **80g:76004**
Slemrod, M. Instability of steady shearing flows in a nonlinear viscoelastic fluid. **80c:76004**
Townsend, P. A computer model of hole-pressure measurement in Poiseuille flow of viscoelastic liquids. **80m:76009**
Zaborski, S. Plane shear waves in viscoelastic fluids as motions with proportional stretch history. (Polish and Russian summaries) **80f:76007**

Secondary classifications:

Infante, E. F. (*with* Walker, J. A.) A stability investigation for an incompressible simple fluid with fading memory. **80j:76032**
Walker, J. A. *See* **Infante, E. F., 80j:76032**

76A99 None of the above, but in this section

Currie, P. K. (*with* MacSithigh, G. P.) The stability and dissipation of solutions for shearing flow of nematic liquid crystals. **80k:76008**
MacSithigh, G. P. *See* **Currie, P. K., 80k:76008**
O'Brien, R. W. A method for the calculation of the effective transport properties of suspensions of interacting particles. **80g:76005**
Williams, W. O. Some simplified equations from the theory of mixtures. **80k:76009**

Secondary classifications:

McAllister, G. T. *See* **McAllister, M. N.; et al., (80e:49002)**
McAllister, M. N. (*with* Rohde, S. M.; McAllister, G. T.) Constructive solution of the 1918 problem of Lord Rayleigh. **(80e:49002)**
Rohde, S. M. *See* **McAllister, M. N.; et al., (80e:49002)**
Sava, Valeriu A. Uniqueness of weak solutions of the micropolar fluid equations. **(80b:35128)**
Tartar, L. Équations hyperboliques non linéaires. **(80a:35083)**
Wirth, Michael C. Symbolic vector and dyadic analysis. **(80e:68094)**

76Bxx Incompressible inviscid fluids, potential theory

Secondary classifications:

Bettess, P. *See* **Zienkiewicz, O. C.; et al., (80e:65107)**
Kelly, D. W. *See* **Zienkiewicz, O. C.; et al., (80e:65107)**
Zienkiewicz, O. C. (*with* Kelly, D. W.; Bettess, P.) Marriage à la mode—the best of both worlds (finite elements and boundary integrals). **(80e:65107)**

76B05 Airfoil theory

Barsony-Nagy, A. *See* **Hanin, M., 80m:76012**
Capodanno, Pierre Sur les solutions périodiques des équations du mouvement d'un profil au sein d'un fluide parfait incompressible en movement irrotationnel. (Russian summary) **80e:76003**
Fromme, J. A. (*with* Golberg, Michael A.) Integral equations for flows in wind tunnels. **80m:76010**
(*with* Golberg, Michael A.) Aerodynamic interference effects on oscillating airfoils with controls in ventilated wind tunnels. **80m:76011**
Geissler, W. Nonlinear unsteady potential flow calculations for three-dimensional oscillating wings. **80a:76003**
Golberg, Michael A. *See* **Fromme, J. A., 80m:76010** *and* **Fromme, J. A., 80m:76011**
Hanin, M. (*with* Barsony-Nagy, A.) Slender wing theory for nonuniform stream. **80m:76012**
Houcentcovschi, Dorel Conformal mapping of the domain exterior to a thin symmetrical profile. **80k:76010**
Conformal mapping of the domain exterior to a thin region. **80k:76008**

Secondary classifications:

Epton, M. A. *See* **Johnson, F. T.; et al., (80m:76029)**
Johnson, F. T. (*with* Tinoco, E. N.; Lu, P.; Epton, M. A.) Three-dimensional flow over wings with leading-edge vortex separation. **(80m:76029)**
Kluge, Reinhard (*with* Langmach, Hartmut) On the determination of some rheologic properties of mechanical media. **(80g:73039)**
Langmach, Hartmut *See* **Kluge, Reinhard, (80g:73039)**
Lu, P. *See* **Johnson, F. T.; et al., (80m:76029)**
Nixon, D. The transonic integral equation method with curved shock waves. (German summary) **(80h:76026)**
Robinson, Abraham ★Selected papers of Abraham Robinson. Vol. III. **(80h:01039c)**
Tinoco, E. N. *See* **Johnson, F. T.; et al., (80m:76029)**
(Young, A. D.) *See* **Robinson, Abraham, (80h:01039c)**

76B10 Jets and cavities, cavitation, free-streamline theory, water-entry problems, hydrofoil theory

Caulk, D. A. (*with* Naghdi, P. M.) The influence of twist on the motion of straight elliptical jets. **80e:76004**
Geer, James (*with* Keller, Joseph B.) Slender streams. **80f:76009**
Keller, Joseph B. *See* **Geer, James, 80f:76009**
Lighthill, Michael James A simple fluid-flow model of ground effect on hovering. **80m:76013**
Lim, T. H. Numerical solution of the Riemann-Hilbert problem for a vertical jet under gravity. **80m:76014**
Lipovoĭ, G. S. Reduction of the problem of nonstationary motion of a wing of finite span under a free surface to the solution of functional equations. (Russian) **80e:76005**
Maklakov, D. V. An investigation of the cavitational flow around a symmetric wedge in a longitudinal gravitational field. (Russian) **80a:76004**
Naghdi, P. M. *See* **Caulk, D. A., 80e:76004**
Pukhačev, V. V. Linear approximation in the problem of the immersion of a blunt body in water. (Russian) **80j:76003**
Terent'ev, A. G. A sloping entrance to an ideal weightless fluid of a thin body with a ventilated cavity. (Russian) **80k:76011**
Verron, Jacques Écoulements cavitants autour d'ailes d'envergure finie en présence d'une surface libre. (English summary) **80k:76012**

Secondary classifications:

Boris, J. P. *See* **Fritts, M. J., (80e:65112)**
Fritts, M. J. (*with* Boris, J. P.) The Lagrangian solution of transient problems in hydrodynamics using a triangular mesh. **(80e:65112)**
Serre, Denis Les invariants du premier ordre de l'équation d'Euler en dimension 3. (English summary) **(80k:35164)**

76B15 Water waves, gravity waves; dispersion and diffraction, nonlinear interaction

Ablowitz, Mark J. (*with* Segur, Harvey) On the evolution of packets of water waves. **80k:76013**
Aleškov, Ju. Z. The theory of surface waves on a current. (Russian) **80j:76004**
Aranha, J. A. (*with* Mei, C. C.; Yue, D. K. P.) Some properties of a hybrid element method for water waves. **80m:76015**
Babič, V. M. (*with* Bilyĭ, I. Ja.) Waveguide properties of an underwater mountain ridge. (Russian) **80h:76005**
Basu, Uma *See* **Debnath, Lokenath, 80b:76003**
Becker, Ernst Some examples of open channel flow with mass addition. (Russian summary) **80d:76003**
Bhattacharyya, Rajyasree Surface waves in deep water due to arbitrary time-dependent pressure distribution. **80g:76006**
Bilyĭ, I. Ja. *See* **Babič, V. M., 80h:76005**
Chatterjee, Anadi Kumar *See* **Debnath, Lokenath; et al., 80g:76007**
Chen, B. (*with* Saffman, P. G.) Numerical evidence for the existence of new types of gravity waves of permanent form on deep water. **80k:76014**
Chin, Wilson C. Effect of dissipation and dispersion on slowly varying wavetrains. **80m:76016**
Cokelet, E. D. *See* **Longuet-Higgins, M. S., 80f:76010**

Das, G. C. Travelling wave solutions for inhomogeneous acoustic gravity waves. **80m:76017**

Debnath, Lokenath (*with* Chatterjee, Anadi Kumar; Ray, Sukomal Chandra) On the capillary-gravity wave problem in a running stream. (Russian summary) **80g:76007**

(*with* Basu, Uma) On generation and propagation of tsunamis in a shallow running ocean. **80b:76003**

Djordjević, Vladan D. (*with* Redekopp, Larry G.) On the development of packets of surface gravity waves moving over an uneven bottom. (German summary) **80e:76006**

Eeckhout, Linda *See* Verheest, Frank, **80j:76010**

Fitz-Gerald, G. F. (*with* Grimshaw, R. H. J.) A note on the uniqueness of small-amplitude water waves travelling in a region of varying depth. **80j:76005**

Gerbold, Diethard Numerische Lösung eines ebenen Anfangswertproblems aus dem Gebiet der Wasserwellen. (English summary) **80j:76006**

Grimshaw, R. H. J. *See* Fitz-Gerald, G. F., **80j:76005**

Hamilton, J. *See* Hui, W. H., **80m:76018**

Hibberd, S. (*with* Peregrine, D. H.) Surf and run-up on a beach: a uniform bore. **80k:76015**

Hogan, S. J. Some effects of surface tension on steep water waves. **80d:76004**

Hui, W. H. (*with* Hamilton, J.) Exact solutions of a three-dimensional nonlinear Schrödinger equation applied to gravity waves. **80m:76018**

Ibes, H.-K. Existenz und Eindeutigkeit eines linearen hyperbolischen Anfangs-Randwertproblems und die praktische Anwendung auf Probleme aus der Hydraulik. II. Die lineare hyperbolische Anfangs-Randwertaufgabe auf Probleme aus der Hydraulik angewandt. (English and Russian summaries) **80m:76019**

Jeffrey, Alan (*with* Kawahara, T.) Multiple scale Fourier transformation: an application to nonlinear dispersive waves. **80j:76007**

See also Kawahara, T., **80g:76008**

Kapouleas, George M. Diffraction of Kelvin waves from a rotating channel with an infinite and a semi-infinite barrier. **80c:76005**

Kawahara, T. (*with* Jeffrey, Alan) Asymptotic dynamical equations for an ensemble of nonlinear dispersive waves. **80g:76008**

See also Jeffrey, Alan, **80j:76007**

Kodama, Yuji (*with* Taniuti, Tosiya) Higher order approximation in the reductive perturbation method. I. The weakly dispersive system. **80a:76005a**

Higher order approximation in the reductive perturbation method. II. The strongly dispersive system. **80a:76005b**

Lauwerier, H. A. A class of problems in hydrodynamics. (Russian summary) **80a:76006**

Longuet-Higgins, M. S. (*with* Cokelet, E. D.) The deformation of steep surface waves on water. II. Growth of normal-mode instabilities. **80k:76010**

The almost-highest wave: a simple approximation. **80k:76016**

Ma, Yan Chow (*with* Redekopp, Larry G.) Some solutions pertaining to the resonant interaction of long and short waves. **80k:76006**

Mei, C. C. *See* Aranha, J. A.; et al., **80m:76015**

Nezit, Pierre Ondes de gravitation avec tension superficielle fonction des impuretés. Analogie avec la dynamique des gaz. (English summary) **80g:76009**

Ni, Hao Qing Analysis of two-dimensional forced water waves. (Chinese) **80a:76007**

Olfe, D. B. *See* Rottman, James W., **80j:76008**

Peregrine, D. H. *See* Hibberd, S., **80k:76015** *and* Stiassnie, M., **80k:76018**

Pramanik, A. K. Transient waves generated by a moving oscillatory pressure on a sloping beach. **80m:76020**

Radder, A. C. On the parabolic equation method for water-wave propagation. **80k:76017**

Ravindran, Renuka Trapped waves in the neighbourhood of a sonic-type singularity. **80m:76021**

Ray, Sukomal Chandra *See* Debnath, Lokenath; et al., **80g:76007**

Redekopp, Larry G. *See* Djordjević, Vladan D., **80e:76006** *and* Ma, Yan Chow, **80k:76006**

Reeder, John (*with* Shinbrot, Marvin) The initial value problem for surface waves under gravity. III. Uniformly analytic initial domains. **80f:76004**

Rottman, James W. (*with* Olfe, D. B.) Numerical calculations of steady gravity-capillary waves using an integro-differential formulation. **80j:76008**

Saffman, P. G. *See* Chen, B., **80k:76014**

Sattar Gazdar, Abdus Generation of waves of small amplitude by an obstacle placed beneath the free surface of running stream of infinite depth. **80j:76009**

Segur, Harvey *See* Ablowitz, Mark J., **80k:76013**

Shinbrot, Marvin *See* Reeder, John, **80f:76004**

Stiassnie, M. (*with* Peregrine, D. H.) On averaged equations for finite-amplitude water waves. **80k:76018**

Taniuti, Tosiya *See* Kodama, Yuji, **80a:76005a**

Temperville, A. Interactions of solitary waves in shallow water theory. (Polish and Russian summaries) **80m:76022**

Tou, Bui An Initial-value problems for the Boussinesq equations of water waves. **80k:76019**

Verheest, Frank (*with* Eeckhout, Linda) Aspects of nonresonant mode coupling in third order. **80j:76010**

Winkler, W. Stromaufwärtslaufende Wellen in überkritisch strömendem Wasser. (English summary) **80g:76010**

Yue, D. K. P. *See* Aranha, J. A.; et al., **80m:76015**

Secondary classifications:

Boccotti, Paolo (*with* Scarsi, Giulio) The statistical properties of waves generated by wind. (Italian. English and French summaries) **(80g:86001)**

Canavati A., José A. (*with* Minzoni, Antonmaria A.) A discontinuous Steklov problem with an application to water waves. **(80h:35042)**

Iskandar, Labib *See* Jain, Padam C., **(80l:65142)**

Jain, Padam C. (*with* Iskandar, Labib) Numerical solutions of the regularized long-wave equation. **(80l:65142)**

Kodama, Yuji (*with* Taniuti, Tosiya) Higher order approximation in the reductive perturbation method. III. The weakly dissipative system. **(80l:35160)**

Minzoni, Antonmaria A. *See* Canavati A., José A., **(80h:35042)**

Scarsi, Giulio *See* Boccotti, Paolo, **(80g:86001)**

Taniuti, Tosiya *See* Kodama, Yuji, **(80l:35160)**

76B20 Ship waves

Keller, Joseph B. The ray theory of ship waves and the class of streamlined ships. **80h:76007**

Secondary classifications:

Hamilton, J. *See* Hui, W. H., **(80m:76018)**

Hui, W. H. (*with* Hamilton, J.) Exact solutions of a three-dimensional nonlinear Schrödinger equation applied to gravity waves. **(80m:76018)**

76B25 Solitary and cnoidal waves

Alexander, M. E. (*with* Morris, J. Ll.) Galerkin methods applied to some model equations for non-linear dispersive waves. **80c:76006**

Bampi, Franco (*with* Morro, Angelo) Korteweg-de Vries equation and nonlinear waves. **80k:76020**

(Berryman, James G.) *See* Van Dooren, René, **80f:76005**

Bruschi, M. (*with* Levi, D.; Ragnisco, O.) Discrete version of the nonlinear Schrödinger equation with linearly x-dependent coefficients. (Italian and Russian summaries) **80k:76021**

Byatt-Smith, J. G. B. The equivalence of Bernoulli's equation and a set of integral relations for periodic waves. **80l:76011**

Case, K. M. Solitons: their origin and behaviour. **80e:76007**

Chang, Peter (*with* Melville, W. K.; Miles, John W.) On the evolution of a solitary wave in a gradually varying channel. **80j:76011**

Chen, H. H. (*with* Lee, Y. C.) Internal-wave solitons of fluids with finite depth. **80c:76007**

Fernandez, Jean-Claude (*with* Froeschlé, Claude; Reinisch, Gilbert) Adiabatic perturbations of solitons and shock waves. **80k:76022**

Froeschlé, Claude *See* Fernandez, Jean-Claude; et al., **80k:76022**

Grimshaw, R. H. J. Slowly varying solitary waves. I. Korteweg - de Vries equation. **80m:76023a**

Slowly varying solitary waves. II. Nonlinear Schrödinger equation. **80m:76023b**

Henyey, Frank S. Finite-depth and infinite-depth internal-wave solitons. **80m:76024**

Hui, W. H. Exact envelope-soliton solutions of a two-dimensional nonlinear wave equation. (French summary) **80m:76025**

Jeffrey, Alan Some aspects of the mathematical modelling of long nonlinear waves. (Polish and Russian summaries) **80k:76023**

Ko, K. (*with* Kuehl, H. H.) Cylindrical and spherical Korteweg-de Vries solitary waves. **80h:76008**

(*with* Kuehl, H. H.) Modified Korteweg-de Vries solitary wave in a slowly varying medium. **80m:76026**

Kuehl, H. H. *See* Ko, K., **80h:76008** *and* Ko, K., **80m:76026**

Laedke, E. W. (*with* Spatschek, K. H.) Liapunov stability of generalized Langmuir solitons. **80m:76027**

Lee, Y. C. *See* Chen, H. H., **80c:76007**

Leo, Mario (*with* Leo, Rosario Antonio; Soliani, Giulio) Soliton-like solutions for a dispersive nonlinear wave equation. **80a:76008**

(*with* Leo, Rosario Antonio; Soliani, Giulio) Analysis of a modified Korteweg-de Vries equation. **80k:76024**

Leo, Rosario Antonio *See* Leo, Mario; et al., **80a:76008** *and* Leo, Mario; et al., **80k:76024**

Leonov, A. I. (*with* Miropol'skiĭ, Ju. Z.; Tamsalu, R. E.) Nonlinear stationary internal and surface waves in shallow seas. (Russian summary) **80g:76011**

Levi, D. *See* Bruschi, M.; et al., **80k:76021**

Melville, W. K. *See* Chang, Peter; et al., **80j:76011**

Miles, John W. On the evolution of a solitary wave for very weak nonlinearity. **80c:76008**

On the Korteweg-de Vries equation for a gradually varying channel. **80g:76012**

On internal solitary waves. (Russian summary) **80j:76012**

See also Chang, Peter; et al., **80j:76011**

Miropol'skiĭ, Ju. Z. *See* Leonov, A. I.; et al., **80g:76011**

Morris, J. Ll. *See* Alexander, M. E., **80c:76006**

Morro, Angelo *See* Bampi, Franco, **80k:76020**

Nakamura, Akira N-periodic wave and N-soliton solutions of the modified Benjamin-Ono equation. **80m:76028**

Ragnisco, O. *See* Bruschi, M.; et al., **80k:76021**

Reinisch, Gilbert *See* Fernandez, Jean-Claude; et al., **80k:76022**

Soliani, Giulio *See* Leo, Mario; et al., **80a:76008** *and* Leo, Mario; et al., **80k:76024**

Spatschek, K. H. *See* Laedke, E. W., **80m:76027**

Tamsalu, R. E. *See* Leonov, A. I.; et al., **80g:76011**

Van Dooren, René Comments on: "Stability of solitary waves in shallow water" (Phys. Fluids **19** (1976), no. 6, 771–777) by J. G. Berryman. **80f:76005**

Secondary classifications:

Belinskiĭ, V. A. (*with* Zaharov, V. E.) Stationary gravitational solitons with axial symmetry. **(80m:83005)**

Choodnovsky, Gregory V. *See* Chudnovsky, David V., **(80j:81034)**

Chudnovsky, David V. (*with* Choodnovsky, Gregory V.) Multisoliton formula for completely integrable two-dimensional systems. **(80j:81034)**

Couch, W. E. (*with* Torrence, R. J.) A particular N-soliton solution and scalar wave equations. **(80m:35064)**

Ellbeck, J. Chris Numerical studies of solitons. **(80g:81012)**

Gibbon, John (*with* James, I. N.; Moroz, I. M.) An example of soliton behaviour in a rotating baroclinic fluid. **(80k:86002)**

James, I. N. *See* Gibbon, John; et al., **(80k:86002)**

Lai, C. S. Effect of the third-order contribution on ion-acoustic solitary waves. (French summary) (80m:82041)
Ma, Yan Chow On the multi-soliton solutions of some nonlinear evolution equations. (80c:35089)
Mares, I. M. *See* Gibbon, John; et al., (80k:86002)
Terrence, R. J. *See* Couch, W. E., (80m:35064)
Zaharov, V. E. *See* Belinskiĭ, V. A., (80m:83005)

76B35 Random waves

76B99 None of the above, but in this section

Andrews, D. G. (*with* McIntyre, M. E.) On wave-action and its relatives. 80d:76005
Boucher, Gilbert (*with* Lillo, Paul) Sur les petits mouvements plans d'un fluide parfait incompressible pesant dans un réservoir animé d'un mouvement voisin d'une translation horizontale uniforme. 80e:76008
Buslaeva, M. V. An application of scattering theory to a hydrodynamical problem. (Russian) 80g:76013
Čerepanin, N. D. On the theory of the motion of bodies under the surface of a fluid. (Russian) 80a:76009
Clavaldini, Jean-François (*with* Pogu, Marc; Tournemine, Georges) Sur l'existence et l'unicité d'écoulements compressibles autour d'un profit en présence de parois à perméabilité variable. (English summary) 80h:76009a
(*with* Pogu, Marc; Tournemine, Georges) Erratum: "Sur l'existence et l'unicité d'écoulements compressibles autour d'un profil en présence de parois à perméabilité variable" [C. R. Acad. Sci. Paris Sér. A-B **288** (1979), no. 2, 177–179]. (English summary) 80h:76009b
Concus, Paul (*with* Finn, Robert) The shape of a pendent liquid drop. 80i:76012
Dragoș, Lazăr Fundamental solutions for ideal fluids in uniform motion. 80b:76004
Fundamental matrix for the equations of ideal fluids. (German summary) 80j:76013
Feuillebois, F. (*with* Lasek, A.) Sur un écoulement avec injection de petites particules. (English summary) 80a:76010
Finn, Robert *See* Concus, Paul, 80i:76012
Gener, A. L. An analytic method of calculating transient one-dimensional fluid flows. (Russian) 80j:76014
Gurevič, I. L. The outflow of a heavy fluid from a vessel with curvilinear walls. (Russian) 80i:76013
The existence and uniqueness of a heavy liquid flow. (Russian) 80k:76025
Hasanova, A. Ju. (*with* Tumašev, G. G.) Heating of the potential flow of an ideal liquid by rigid walls. (Russian) 80d:76006
Hohlov, R. V. (*with* Makov, Ju. N.) Markov wave processes. (Russian) 80a:76011
Lasek, A. *See* Feuillebois, F., 80a:76010
Lillo, Paul *See* Boucher, Gilbert, 80e:76008
Makov, Ju. N. *See* Hohlov, R. V., 80a:76011
Mattioli, Franco Wave-induced oscillations in harbours of variable depth. 80a:76012
Matunobu, Yaso'o Two-dimensional viscous flow accompanied by a stagnation point on a plane wall. 80i:76014
McIntyre, M. E. *See* Andrews, D. G., 80d:76005
Moreau, J. J. Le calcul des variations horizontales et l'hydrodynamique. 80h:76010
Nalimov, V. I. (*with* Plotnikov, P. I.) Boundary value problems in the theory of the motion of a fluid with free boundaries. (Russian) 80k:76026
Newell, Alan C. Long waves–short waves; a solvable model. 80c:76009
Petrila, Titus Méthode pratique pour la détermination de l'écoulement produit par un déplacement d'un profil d'aile à point anguleux dans un fluide idéal. 80a:76013
Plotnikov, P. I. On spatial free-boundary flows. (Polish and Russian summaries) 80c:76009
See also Nalimov, V. I., 80k:76026
Pogu, Marc *See* Clavaldini, Jean-François; et al., 80h:76009a *and* Clavaldini, Jean-François; et al., 80h:76009b
Ragulin, V. V. The formulation of a problem on the flow of an ideal fluid. (Russian) 80f:76006
Rao, P. Samba Shiva Geometry of streamlines in fluid flow theory. 80a:76014
Steger, Joseph L. Coefficient matrices for implicit finite difference solution of the inviscid fluid conservation law equations. 80a:76015
Taub, A. H. Relativistic fluid mechanics. 80d:76007
Terent'ev, A. G. The nonlinear theory of cavitational flow. (Russian) 80c:76010
Tournemine, Georges *See* Clavaldini, Jean-François; et al., 80h:76009a *and* Clavaldini, Jean-François; et al., 80h:76009b
Tumašev, G. G. *See* Hasanova, A. Ju., 80d:76006

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Aganović, Ibrahim An eigenvalue problem of continuum mechanics. (80j:35084)
Babaev, A. A. Solvability of a nonlinear boundary value problem for analytic functions. (Russian) (80e:30017)
Beirão-da-Veiga, Hugo (*with* Valli, Alberto) On the motion of a nonhomogeneous ideal incompressible fluid in an external forced field. (80i:35150)
Büttiker, M. (*with* Thomas, H.) Hydrodynamic modes, soft modes and fluctuation spectra near the threshold of a current instability. (80c:76058)
Dooge, J. C. I. (*with* Garvey, B. J.) The use of Meixner functions in the identification of heavily-damped systems. (80d:93029)
Falby, W. *See* Shaw, R. P., (80i:65128)
Fomin, V. M. *See* Janenko, N. N.; et al., (80d:65019)
Freeman, N. C. A two-dimensional distributed soliton solution of the Korteweg-de Vries equation. (80h:35113)
Garvey, B. J. *See* Dooge, J. C. I., (80d:93029)
Janenko, N. N. (*with* Kovenja, V. M.; Liseĭkin, V. D.; Fomin, V. M.; Vorožcov, E. V.) On some methods for the numerical simulation of flows with complex structure. (80d:65019)
Kovenja, V. M. *See* Janenko, N. N.; et al., (80d:65019)
Liseĭkin, V. D. *See* Janenko, N. N.; et al., (80d:65019)
Miles, John W. The asymptotic solution of the Korteweg-de Vries equation in the absence of solitons. (80d:35130)
Shaw, R. P. (*with* Falby, W.) FEBIE—a combined finite element-boundary integral equation method. (80i:65128)
Šugrin, S. M. *See* Voevodin, A. F., (80f:65139)
Tao, L. N. On the material time derivative of arbitrary order. (80b:26017)
Thomas, H. *See* Büttiker, M., (80c:76058)
Valli, Alberto *See* Beirão-da-Veiga, Hugo, (80i:35150)
Voevodin, A. F. (*with* Šugrin, S. M.) Numerical calculation of one-dimensional flows of water in river channel and canal systems. (Russian) (80f:65139)
Vorožcov, E. V. *See* Janenko, N. N.; et al., (80d:65019)
Wilhelm, H. E. Lagrangian and Hamiltonian formulations of compressible hydrodynamics. (80g:76034)

76Cxx Incompressible inviscid fluids, vorticity flows

76C05 Vorticity flows

Balli, Raffaele (*with* Pucci, Edvige) A class of cylindrical vortices in an incompressible viscous fluid. (Italian. French summary) 80d:76008
Bykov, V. M. Vorticity flows in a sphere. (Russian) 80c:76010
Davis, Stephen H. *See* Rosenblat, S., 80d:76009
Epton, M. A. *See* Johnson, F. T.; et al., 80m:76029
Ferziger, Joel H. Energetics of vortex rollup and pairing. 80k:76027
Frisch, Uriel *See* Morf, Rudolf H.; et al., 80k:76028
Guo, Ben Yu A difference method for solving the two-dimensional vorticity equation. (Chinese) 80b:76005
Conservativeness and stability of a difference scheme for the vorticity equation in numerical weather forecasting. (Chinese) 80a:76016
Difference methods in fluid dynamics. I. Numerical solution of the two-dimensional vorticity equation. (Chinese. English summary) 80f:76007
Howe, M. S. On the theory of unsteady high Reynolds number flow through a circular aperture. 80g:76014
Inoue, M. (*with* Kuroumaru, M.; Yamaguchi, Seiichi) A solution of Fredholm integral equation by means of the spline fit approximation. 80c:76011
Johnson, F. T. (*with* Tinoco, E. N.; Lu, P.; Epton, M. A.) Three-dimensional flow over wings with leading-edge vortex separation. 80m:76029
Kuroumaru, M. *See* Inoue, M.; et al., 80c:76011
Le Grives, E. Champ aérodynamique induit par un jet pénétrant dans un écoulement transversal, en régime subsonique. (English summary) 80j:76015
Lu, P. *See* Johnson, F. T.; et al., 80m:76029
Marris, A. W. On steady screw motions of a viscous fluid. (Italian summary) 80a:76017
Moffatt, H. K. (*with* Moore, D. W.) The response of Hill's spherical vortex to a small axisymmetric disturbance. 80a:76018
Moore, D. W. The spontaneous appearance of a singularity in the shape of an evolving vortex sheet. 80b:76006
See also Moffatt, H. K., 80a:76018
Morf, Rudolf H. (*with* Orszag, Steven A.; Frisch, Uriel) Spontaneous singularity in three-dimensional, inviscid, incompressible flow. 80k:76028
Orszag, Steven A. *See* Morf, Rudolf H.; et al., 80k:76028
Pucci, Edvige *See* Balli, Raffaele, 80d:76008
Pullin, D. I. The large-scale structure of unsteady self-similar rolled-up vortex sheets. 80i:76015
Rosenblat, S. (*with* Davis, Stephen H.) Bifurcation from infinity. 80d:76009
Rotunno, Richard A note on the stability of a cylindrical vortex sheet. 80d:76010
Saffman, P. G. The approach of a vortex pair to a plane surface in inviscid fluid. 80g:76015
Šalić, Mane Application of analytical complex functions for the investigation of some classes of vortex flows. 80k:76029
Tinoco, E. N. *See* Johnson, F. T.; et al., 80m:76029
Yamaguchi, Seiichi *See* Inoue, M.; et al., 80c:76011
Zabusky, Norman J. Contour dynamics for the Euler equations in two dimensions. 80g:76016
Zeytounian, Radyadour Kh. The theory of three-dimensional vortex flows of ideal fluids. (Russian) 80j:76016

Secondary classifications:

Al-Zanaidi, M. A. *See* Dore, B. D., (80i:76044)
Benachour, Said Analyticité des solutions des équations d'Euler. (80f:35105)
Dore, B. D. (*with* Al-Zanaidi, M. A.) On secondary vorticity in internal waves. (80i:76044)
Ichiyanagi, Masakazu Generalized solutions to the Gross-Pitaevskiĭ equation. (80k:81200)
McCauley, Joseph L., Jr. Phase space quantisation of interacting vortices in two dimensions. (80k:81201)
Polevikov, V. K. A difference scheme of the fourth order of accuracy for calculating the vortex function on the boundary in fluid dynamics problems. (Russian. English summary) (80k:65098)
Singh, Punyatma (*with* Srivastava, K. K.) Variational solution of heat convection in the channel flow with the help of GPDP. (80c:80008)
Srivastava, K. K. *See* Singh, Punyatma, (80c:80008)

76C10 Internal waves

Jasiulevičius, Algimantas The linear theory of oscillations of a boundless layer of a compressible fluid of finite depth that are created by small movements of the bottom. (Russian. Lithuanian and English summaries) 80d:76011

Mahanti, N. C. Small-amplitude internal waves due to an oscillatory pressure. **80c:76012**

Secondary classifications:

Belov, Ju. Ja. A quasilinear stationary problem of ocean dynamics. (Russian) **(80f:86002)**
LeBlond, Paul H. (*with* Mysak, Lawrence A.) Ocean waves: a survey of some recent results. **(80g:86004)**
Miropol'skiĭ, Ju. Z. Self-similar solutions of the Cauchy problem for internal waves in an unbounded fluid. **(80g:86005)**
Mysak, Lawrence A. *See* **LeBlond, Paul H., (80g:86004)**

76C15 Atmospheric waves

76C20 Rossby waves

Hasegawa, Akira (*with* Maclennan, Carol G.; Kodama, Yuji) Nonlinear behavior and turbulence spectra of drift waves and Rossby waves. **80j:76017**
Hukuda, Hisashi Solitary Rossby waves in a two-layer system. (Russian summary) **80j:76018**
Kodama, Yuji *See* ***Hasegawa, Akira; et al., 80j:76017***
Maclennan, Carol G. *See* **Hasegawa, Akira; et al., 80j:76017**

Secondary classifications:

Lindzen, Richard S. (*with* Tung, Ka Kit) Wave overreflection and shear instability. **(80c:86002)**
Tung, Ka Kit *See* **Lindzen, Richard S., (80c:86002)**

76C99 None of the above, but in this section

Alberverio, Sergio (*with* Ribeiro de Faria, M.; Høegh-Krohn, Raphael) Stationary measures for the periodic Euler flow in two dimensions. **80f:76008**
Andreev, V. K. (*with* Puhnačev, V. V.) The motion of a finite mass of fluid. (Russian) **80f:76009**
Baklanovskaja, V. F. (*with* Pal'cev, B. V.; Čečel', I. I.) Boundary value problems for the Saint-Venant system of equations on the plane. (Russian) **80j:76019**
Berdičevskiĭ, A. L. (*with* Berdičevskiĭ, V. L.) The flow of an ideal fluid around a periodic system of bodies. (Russian) **80c:76013**
Berdičevskiĭ, V. L. *See* **Berdičevskiĭ, A. L., 80c:76013**
Čečel', I. I. *See* **Baklanovskaja, V. F.; et al., 80j:76019**
Hakimzjanov, G. S. Two-dimensional flows of an ideal fluid with an influx of mass. (Russian) **80d:76013**
Høegh-Krohn, Raphael *See* **Alberverio, Sergio; et al., 80f:76008**
Iovnovič, Ja. L. A system of differential equations that describe the acceleration of a liquid column. (Russian) **80d:76014**
Knowles, James K. (*with* Sternberg, Eli) On the failure of ellipticity and the emergence of discontinuous deformation gradients in plane finite elastostatics. **80d:76012**
Loginov, B. V. Construction of periodic solutions to a three-dimensional problem of waves over an even bottom. (Russian) **80j:76020**
Men'šikov, V. M. Small perturbations of unsteady homogeneous motions of an ideal incompressible fluid with axial symmetry. (Russian) **80k:76030**
Ovsjannikov, L. V. Models of two-layered "shallow water". (Russian) **80i:76016**
Pal'cev, B. V. *See* **Baklanovskaja, V. F.; et al., 80j:76019**
Puhnačev, V. V. *See* **Andreev, V. K., 80f:76009**
Ramachandra Rao, A. Surface waves in a rotating fluid due to sources and internal boundaries. (German summary) **80d:76015**
Reid, W. H. An exact solution of the Orr-Sommerfeld equation for plane Couette flow. **80m:76030**
Ribeiro de Faria, M. *See* **Alberverio, Sergio; et al., 80f:76008**
Sahnovič, L. A. Equations with a difference kernel on a finite segment. (Russian) **80g:76017**
Smith, F. T. The separating flow through a severely constricted symmetric tube. **80d:76016**
Sternberg, Eli *See* **Knowles, James K., 80d:76012**
Sudakov, S. N. Canonical equations of motion of a rigid body with a vortex filling. (Russian) **80j:76021a**
The form of a closed cavity in which there exist uniform vortex motions of an ideal incompressible fluid. (Russian) **80j:76021b**
Šugrin, S. M. Two-dimensional (planned) non-steady-state flows of water. (Russian) **80d:76017**
Sulem, Catherine (*with* Sulem, Pierre Louis) Mouvement sphérique du fluide parfait incompressible. (English summary) **80k:76031**
Sulem, Pierre Louis *See* **Sulem, Catherine, 80k:76031**
Tomarelli, Franco Un problème de fluidodynamique résolu avec les inéquations variationnelles. (English summary) **80a:76019**
Vladimirov, V. A. Vortex impulse of bounded flows of an ideal incompressible fluid. (Russian) **80e:76011**
Walker, J. D. A. The boundary layer due to rectilinear vortex. **80a:76020**
Zeytounian, Radyadour Kh. Application of Lagrangian invariants to the calculation of three-dimensional rotational flows of a perfect fluid. **80h:76011**

Secondary classifications:

Cheng, H. K. *See* **Stewartson, Keith, (80g:76048)**
Donato, Andrea Influence of a strong discontinuity on the propagation of second order discontinuities. **(80j:35066)**
Feistauer, Miloslav Solution of elliptic problem with not fully specified Dirichlet boundary value conditions and its application in hydrodynamics. (Czech summary) **(80c:35029)**
Johnson, T. L. Initial-value control of the Korteweg-de Vries equation. **(80g:35112)**
Ma, Yan Chow The perturbed plane-wave solutions of the cubic Schrödinger equation. **(80e:81012)**
Meiss, James D. (*with* Pomphrey, Neil; Watson, Kenneth M.) Numerical analysis of weakly nonlinear wave turbulence. **(80d:82067)**
Narasimhacharyulu, V. (*with* Ramacharyulu, N. Ch. Pattabhi) Steady flow in a porous region between two slowly rotating spheres. **(80h:76044)**
Ngo Zuĭ Kan The free rotation of a rigid body having a cavity filled with viscous liquid. (Russian) **(80i:70006)**
Pomphrey, Neil *See* **Meiss, James D.; et al., (80d:82067)**
Ramacharyulu, N. Ch. Pattabhi *See* **Narasimhacharyulu, V., (80h:76044)**
Saleh, Ahmed Safvat Abd el'-Radi Diffraction of waves by a discontinuity line in the curvature of a boundary surface. (Russian. English summary) **(80b:76036)**
Sekerž-Zen'kovič, S. Ja. Fundamental solution of the interior wave operator. (Russian) **(80b:35029)**
Smolencev, N. K. A weak Riemannian structure on a group of diffeomorphisms. (Russian) **(80j:58018)**
Stewartson, Keith (*with* Cheng, H. K.) On the structure of inertial waves produced by an obstacle in a deep, rotating container. **(80g:76048)**
Vanderbauwhede, André L. Potential operators and variational principles: a generalization. **(80c:49041)**
Watson, Kenneth M. *See* ***Meiss, James D.; et al., (80d:82067)***

76Dxx Incompressible viscous fluids

76D05 Navier-Stokes equations [See also 35Q10.]

Bemelmans, Josef Eine Aussenraumaufgabe für die instationären Navier-Stokes-Gleichungen. **80j:76022**
Boutx, Maurice Application des distributions aux discontinuités des équations de Navier-Stokes. (English summary) **80j:76023**
Brooks, Alec *See* **Hughes, Thomas J. R.; et al., 80b:76008**
Camenschi, Galina A model of a viscous fluid motion through thin pipe with thin linear elastic wall. **80d:76018**
Daube, Olivier (*with* Ta Phuoc Loc) Étude numérique d'écoulements instationnaires de fluide visqueux incompressible autour de corps profilés par une méthode combinée d'ordre $O(h^2)$ et $O(h^4)$. (English summary) **80e:76012**
Di Carlo, A. (*with* Piva, R.; Guj, G.) A study on curvilinear coordinates and macro-elements for multiply connected flow fields. **80h:76012**
Džakupov, K. B. A method of solving nonevolutionary problems of viscous fluid mechanics by inclusion of equations for vorticity and rate components. (Russian. Kazakh summary) **80d:76019**
Enc, Horia I. On surface boundary phenomena in the case of the flow of a viscous fluid in the presence of a porous medium. (Romanian. English summary) **80d:76020**
Favorskiĭ, A. P. *See* **Gasilov, V. A.; et al., 80b:76007** *and* **Taran, M. D.; et al., 80a:76033**
Franchi, Franca A uniqueness theorem for the Boussinesq equations modified by the Cattaneo-Fox equation. (Italian. English summary) **80m:76031**
Gasilov, V. A. (*with* Goloviznin, V. M.; Taran, M. D.; Tiškin, V. F.; Tjurina, N. N.; Favorskiĭ, A. P.; Šaškov, M. Ju.) Application of Newton's method for the solution of difference equations in hydrodynamics. (Russian. English summary) **80b:76007**
Glowinski, Roland (*with* Mantel, B.; Periaux, J.; Pironneau, O.) H^{-1} least squares method for the Navier-Stokes equations. **80d:76021**
(*with* Pironneau, O.) On numerical methods for the Stokes problem. **80j:76034**
Goloviznin, V. M. *See* **Gasilov, V. A.; et al., 80b:76007**
Guj, G. *See* **Di Carlo, A.; et al., 80h:76012**
Gupta, Murli M. (*with* Manohar, Ram P.) Boundary approximations and accuracy in viscous flow computations. **80g:76018**
Hess, Siegfried Variational principle for slow viscous flow of fluids with anisotropic and spatially inhomogeneous viscosity, upper and lower bounds on the frictional force and torque. **80c:76014**
Hughes, Thomas J. R. (*with* Liu, Wing Kam; Brooks, Alec) Finite element analysis of incompressible viscous flows by the penalty function formulation. **80b:76008**
Jiang, Li Shang (*with* Lin, Qun) The finite element method for stationary Navier-Stokes equations. (Chinese) **80f:76010**
Komljenović, S. The laws of conservation of one-dimensional motion of nonlinear continuum. **80d:76022**
Krause, Egon *See* **Liu, N. S., 80h:76013**
Lewis, E. Steady flow between a rotating circular cylinder and fixed square cylinder. **80m:76032**
Lin, Qun *See* **Jiang, Li Shang, 80f:76010**
Lions, Jacques-Louis On some problems connected with Navier-Stokes equations. **80a:76021**
Liu, N. S. (*with* Krause, Egon) Calculation of incompressible viscous flows in vessels with moving boundaries. (German summary) **80h:76013**
Liu, Wing Kam *See* **Hughes, Thomas J. R.; et al., 80b:76008**
Manohar, Ram P. *See* **Gupta, Murli M., 80g:76018**
Mantel, B. *See* **Glowinski, Roland; et al., 80d:76021**
Marris, A. W. The impossibility of steady screw motions of a Navier-Stokes fluid. **80h:76014**
McCracken, M. F. (*with* Peskin, C. S.) A vortex-grid method for blood flow through heart valves. **80e:76013**
Myšenkov, V. I. Calculation of the viscous laminary jet flow in a slipstream. (Russian) **80d:76023**
Periaux, J. *See* **Glowinski, Roland; et al., 80d:76021**
Peskin, C. S. *See* **McCracken, M. F., 80e:76013**
Pironneau, O. *See* **Glowinski, Roland; et al., 80d:76021** *and* **Glowinski, Roland, 80j:76024**
Piva, R. *See* **Di Carlo, A.; et al., 80h:76012**
Rabinovič, L. M. The influence of soluble surface-active substances on the stability of liquid films and streams. (Russian) **80d:76024**

Roscoe, D. F. The numerical solution of the Navier-Stokes equations for a three-dimensional laminar flow in curved pipes using finite-difference methods. **80a:76022**

Šaškov, M. Ju. *See* **Gasilov, V. A.; et al., 80b:76007**

Shestakov, Aleksei I. A hybrid vortex-ADI solution for flows of low viscosity. **80b:76015**

Steppeler, J. Fluid computations using infinitesimal functionals. **80a:76023**

Styczek, Andrzej The solution of the Navier-Stokes equation via successive approximations. **80h:76016**

Ta Phuoc Loc *See* **Daube, Olivier, 80e:76012**

Taran, M. D. (*with* Taran, T. V.; Favorskiĭ, A. P.) Algorithm for numerical simulation of hydrodynamical flows by means of particles of finite size. (Russian) **80m:76033**

See also **Gasilov, V. A.; et al., 80b:76007**

Taran, T. V. *See* **Taran, M. D.; et al., 80m:76033**

Tikin, V. F. *See* **Gasilov, V. A.; et al., 80b:76007**

Tjurina, N. N. *See* **Gasilov, V. A.; et al., 80b:76007**

Vasil'ev, M. M. Two-dimensional steady-state flow of a viscous fluid around a cylinder with a small Reynolds number. (Russian. English summary) **80m:76034**

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Amick, Charles J. Properties of steady Navier-Stokes solutions for certain unbounded channels and pipes. **(80h:35109)**

Arsen'ev, A. A. The existence of stochastic and statistical solutions of nonlinear equations. (Russian) **(80b:35117)**

Bardos, C. Équations de Navier-Stokes et modèle de la turbulence. (English summary) **(80g:35103)**

Barnsley, Michael F. (*with* Turchetti, G.) Generalized Padé resummation of the solution of a nonlinear Boltzmann equation. **(80i:82004)**

Belosov, L. A. Asymptotic behavior for large t of the Fourier coefficients of the solutions of systems of Navier-Stokes equations. (Russian) **(80j:35011)**

Belti, M. (*with* Pempinelli, F.) Similarity solutions of the Korteweg-de Vries equation. **(80d:35126)**

Boldrighini, Carlo (*with* Franceschini, Valter) A five-dimensional truncation of the plane incompressible Navier-Stokes equations. **(80g:35105)**

Bontoux, P. (*with* Forestier, B.; Roux, B.) Analyse et optimisation d'une méthode de haute précision pour la résolution des équations de Navier-Stokes instationnaires. (English summary) **(80a:65211)**

Bristeau, M. O. (*with* Pironneau, O.; Glowinski, Roland; Periaux, J.; Perrier, P.) On the numerical solution of nonlinear problems in fluid dynamics by least squares and finite element methods. I. Least square formulations and conjugate gradient solution of the continuous problems. **(80e:65099)**

Cabannes, Henri (*with* Gatignol, R.; Leguillon, D.) Mathematical and numerical aspects of discrete kinetic theory. **(80d:82045)**

Fišer, I. Z. (*with* Lesnikov, V. P.) Nonequilibrium thermally-induced flow fluctuations. **(80f:80002)**

Forestier, B. *See* **Bontoux, P.; et al., (80a:65211)**

Franceschini, Valter *See* **Boldrighini, Carlo, (80g:35105)**

Fromin, V. M. *See* **Janenko, N. N.; et al., (80j:76044)**

Galdi, Giovanni P. (*with* Rionero, Salvatore) Continuous dependence theorems for Navier-Stokes equations in unbounded domains by the weight-function method. **(80f:35106)**

Gatignol, R. *See* **Cabannes, Henri; et al., (80d:82045)**

Glowinski, Roland *See* **Bristeau, M. O.; et al., (80e:65099)**

Hažatorov, A. R. Spectral characteristics of a family of difference schemes for Navier-Stokes equations. (Russian) **(80d:65134)**

Jain, Padam C. (*with* Lohar, B. L.) Cubic spline technique for coupled nonlinear parabolic equations. **(80f:65130)**

Janenko, N. N. (*with* Okuncov, V. V.; Zaharov, Ju. N.; Šokin, Ju. I.; Paničkin, A. V.) Two iteration schemes for the solution of a stationary system of Navier-Stokes equations. (Russian) **(80j:65038)**

(*with* Kovenja, V. M.; Liseĭkin, V. D.; Fromin, V. M.; Vorožcov, E. V.) On some methods for the numerical simulation of flows with complex structure. **(80j:76044)**

Johnson, Claes A mixed finite element method for the Navier-Stokes equations. (French summary) **(80f:65119)**

Kažihov, A. V. (*with* Nikolaev, V. B.) On the theory of Navier-Stokes equations of a viscous gas with a nonmonotone state function. (Russian) **(80i:35147)**

Kovenja, V. M. *See* **Janenko, N. N.; et al., (80j:76044)**

Ladyženskaja, Olga A. On formulation and solvability of boundary value problems for viscous incompressible fluids in domains with non-compact boundaries. **(80e:35052)**

Le Fur, B. Solutions particulières à un paramètre des équations stationnaires de Navier-Stokes. **(80b:35118)**

Leguillon, D. *See* **Cabannes, Henri; et al., (80d:82045)**

Lesnikov, V. P. *See* **Fišer, I. Z., (80f:80002)**

Lewis, Jeff E. Hydrodynamical potentials and parabolic singular integral operators. **(80e:35053)**

Liseĭkin, V. D. *See* **Janenko, N. N.; et al., (80j:76044)**

Lohar, B. L. *See* **Jain, Padam C., (80f:65130)**

Lombard, C. K. *See* **Thomas, P. D., (80h:65104)**

Malorova, O. S. (*with* Popov, Ju. P.) An algorithm for the numerical solution of two-dimensional Navier-Stokes equations. (Russian) **(80e:65116)**

Müller, Manfred W. (*with* Naumann, Joachim) On evolution inequalities of a modified Navier-Stokes type. II. (Czech summary) **(80a:35103)**

Naumann, Joachim On evolution inequalities of Navier-Stokes type in two dimensions. **(80a:35062)**

See also **Müller, Manfred W., (80a:35103)**

Nikolaev, V. B. *See* **Kažihov, A. V., (80i:35147)**

Nürnberg, Reiner On the determination of functional parameters in nonlinear evolution equations of the Navier-Stokes type. **(80h:35110)**

Okuncov, V. V. *See* **Janenko, N. N.; et al., (80j:65038)**

Paničkin, A. V. *See* **Janenko, N. N.; et al., (80j:65038)**

Pempinelli, F. *See* **Belti, M., (80d:35126)**

Periaux, J. *See* **Bristeau, M. O.; et al., (80e:65099)**

Perrier, P. *See* **Bristeau, M. O.; et al., (80e:65099)**

Pironneau, O. *See* **Bristeau, M. O.; et al., (80e:65099)**

Popov, Ju. P. *See* **Malorova, O. S., (80e:65116)**

Raviart, Pierre-Arnaud Finite element methods and Navier-Stokes equations. **(80k:65093)**

Rionero, Salvatore *See* **Galdi, Giovanni P., (80f:35106)**

Roux, B. *See* **Bontoux, P.; et al., (80a:65211)**

Sadovnikov, Ju. Ju. Recurrent schemes for the mean quadratic approximation of functions of several variables. (Russian. English summary) **(80a:65037)**

Šokin, Ju. I. *See* **Janenko, N. N.; et al., (80j:65038)**

Temam, Roger Qualitative properties of Navier-Stokes equations. **(80d:35124)**

Thomas, P. D. (*with* Lombard, C. K.) Geometric conservation law and its application to flow computations on moving grids. **(80h:65104)**

Turchetti, G. *See* **Barnsley, Michael F., (80i:82004)**

Vorožcov, E. V. *See* **Janenko, N. N.; et al., (80j:76044)**

Zaharov, Ju. N. *See* **Janenko, N. N.; et al., (80j:65038)**

76D10 Boundary-layer theory

Bogdanova, V. V. Laminar boundary layer on the walls of an axisymmetric channel in the presence of swirls in the external stream. **80k:76032**

Brauner, Claude-Michel (*with* Crolet, M. H.; Misiti, M.; Gay, B.) Optimal control of the laminar boundary layer by blowing or suction at the wall. **80c:76015**

Chuang, Sue Li (*with* Payne, Fred R.) A second-stage eddy-viscosity calculation for the flat-plate turbulent boundary layer. **80m:76035**

Clayton, B. R. (*with* Massey, B. S.) Exact similar solution for an axisymmetric laminar boundary layer on a circular cone. **80f:76011**

Crolet, M. H. *See* **Brauner, Claude-Michel; et al., 80c:76015**

Dänbler, H.-G. *See* **Schönauer, W.; et al., 80a:76025**

Dijkstra, D. Separating, incompressible, laminar boundary-layer flow over a smooth step of small height. **80k:76033**

Dore, B. D. A double boundary-layer model of mass transport in progressive interfacial waves. **80a:76024**

Gay, B. *See* **Brauner, Claude-Michel; et al., 80c:76015**

Glotz, G. *See* **Schönauer, W.; et al., 80a:76025**

Grüning, J. *See* **Schönauer, W.; et al., 80a:76025**

Haidvogel, Dale B. Resolution of downstream boundary layers in the Chebyshev approximation to viscous flow problems. **80m:76036**

Ikeda, George *See* **Zagustin, Elena A.; et al., 80c:76017**

Kalaba, Robert E. *See* **Zagustin, Elena A.; et al., 80c:76017**

Kalicova-Kurteva, P. G. *See* **Zaprjanov, Z. D., 80a:76027**

Massey, B. S. *See* **Clayton, B. R., 80f:76011**

Misiti, M. *See* **Brauner, Claude-Michel; et al., 80c:76015**

Payne, Fred R. *See* **Chuang, Sue Li, 80m:76035**

Purushothaman, R. Fluctuating boundary layers in a rotating fluid with variable suction. **80b:76009**

Saljnikov, Viktor N. A contribution to universal solutions of the boundary layer theory. (German and Serbo-Croatian summaries) **80e:76014**

Schönauer, W. (*with* Grüning, J.; Däubler, H.-G.; Glotz, G.) Streamline coordinates and similarity transformation for the 3-D boundary layer. **80a:76025**

Schwierz, K.-P. Existenz und Eindeutigkeit der Görtler-Funktionen. **80a:76026**

Sharma, V. P. Flow and heat transfer due to small torsional oscillations of a disk about a constant mean. (German summary) **80f:76012**

Wornom, Stephen F. Applications of higher-order numerical methods to the boundary-layer equations. **80c:76016**

Zagustin, Elena A. (*with* Kalaba, Robert E.; Ikeda, George) Solution of the Falkner-Skan equation by quasilinearization. **80c:76017**

Zaprjanov, Z. D. (*with* Kalicova-Kurteva, P. G.) Formation and initial stage of development of the boundary layer for flow around a parabolic cylinder at an angle of attack. (Bulgarian. Russian and English summaries) **80a:76027**

Secondary classifications:

Hayashi, Kiyoshi The boundary layer equation $x'''+2xx''+2\lambda(1-x'^2)=0$. **(80i:34091)**

Meiss, James D. (*with* Watson, Kenneth M.) Discussion of some weakly nonlinear systems in continuum mechanics. **(80d:73051)**

Troy, William C. Nonmonotonic solutions of the Falkner-Skan boundary layer equation. **(80j:34020)**

Watson, Kenneth M. *See* **Meiss, James D., (80d:73051)**

76D15 Boundary-layer separation and reattachment

van Heijst, G. J. F. Rotating flow in a cylinder with a circular barrier on the bottom. **80d:76025a**

Errata: "Rotating flow in a cylinder with a circular barrier on bottom" (J. Engrg. Math. 13 (1979), no. 2, 153–171). **80d:76025b**

Kolosov, V. V. (*with* Šifrin, È. G.) Flow around a body with a formation of a fully developed stationary discontinuous region as $\mathrm{Re}\to\infty$. (Russian) **80a:76028**

Kravčenko, V. I. Gradual acceleration and deceleration of a circular cylinder in the flow of a viscous incompressible fluid. (Russian) **80d:76026**

Šifrin, È. G. *See* **Kolosov, V. V., 80a:76028**

Williams, James C. On the nature of unsteady three-dimensional laminar boundary-layer separation. **80d:76027**

Secondary classifications:

Cebeci, Tuncer (*with* Keller, Herbert B.; Williams, Peter G.) Separating boundary-layer flow calculations. **(80h:76028)**

Keller, Herbert B. *See* **Cebeci, Tuncer; et al., (80h:76028)**

Williams, Peter G. *See* **Cebeci, Tuncer; et al., (80h:76028)**

76D20 Higher-order effects in boundary layers

76D25 Wakes and jets

Guirand, Jean-Pierre Condition de rayonnement pour la version tridimensionnelle du modèle de Long des ondes de relief. (English summary) **80i:76017**

Lihačev, O. A. (*with* Pravdina, M. H.) Model self-oscillations in a two-dimensional jet. (Russian) **80k:76034**

Lukerčenko, N. N. The reciprocal blow of two jets with resulting formation of stagnation zone. (Russian. English summary) **80c:76018**

Maidrakova, E. L. *See* **Zaprjanov, Z. D., 80a:76029**

Pickering, W. M. (*with* Sozou, C.) The round laminar jet in a spherical envelope. **80k:76035**

Pravdina, M. H. *See* **Lihačev, O. A., 80k:76034**

Sozou, C. *See* **Pickering, W. M., 80k:76035**

Takemitsu, Nobumasa On the similarity of the wake of the steady flow around a circular cylinder. **80k:76036**

Zak, Michail Dynamics of liquid films and thin jets. **80i:76018**

Zaprjanov, Z. D. (*with* Maždrakova, E. L.) The solution of a boundary value problem in the theory of jets. (Bulgarian. Russian and English summaries) **80a:76029**

Secondary classifications:

Isaacs, Rufus On applied mathematics. **(80e:00008)**

76D30 Singular perturbation problems

Šidlovskiĭ, V. P. The structure of a viscous fluid flow near a rotating disk edge. **80e:76030**

Vasil'ev, M. M. Determination of the flow field in a region adjacent to a streamlined body at small Reynolds number. **80i:76019**

Secondary classifications:

Bentwich, Michael Semibounded slow viscous flow past a cylinder. **(80e:76015)**

76D35 Random waves

76D99 None of the above, but in this section

Ammicht, E. Free surface and surface tension effects on submerged bodies. **80j:76025**

Batteh, Jad H. *See* **Powell, John D., 80d:76031**

Benjamin, T. B. Quelques nouveaux résultats concernant des phénomènes de bifurcation en mécanique des fluides. **80g:76019**

Bentwich, Michael Semibounded slow viscous flow past a cylinder. **80e:76015**

Bercovier, Michel (*with* Engelman, Michael) A new finite element for the numerical solution of viscous incompressible flows. **80c:76019**

Camenschi, Galina (*with* Şandru, Nicolae) A model of a viscous fluid motion through an axisymmetrical deformable pipe with thin linear elastic wall. **80k:76037**

Chow, P. L. (*with* Saibel, E. A.) Analysis of a stochastic Reynolds equation and related problems. **80d:76028**

Cox, R. G. *See* **Di Pietro, N. D., 80k:76039**

Datta, Subhendu K. *See* **Sthapit, Y. R., 80c:76023**

Davis, A. M. J. Some further results on separation in Stokes flows. **80k:76038**

Davydov, Ju. M. Multiparametric splitting schemes for the solution of spatially three-dimensional transient problems. (Russian) **80j:76026**

Dennis, S. C. R. (*with* Singh, Shiva Nandan) Calculation of the flow between two rotating spheres by the method of series truncation. **80g:76020**

Di Pietro, N. D. (*with* Cox, R. G.) The spreading of a very viscous liquid on a quiescent water surface. **80k:76039**

Dorrepaal, J. M. (*with* O'Neill, M. E.) The existence of free eddies in a streaming Stokes flow. **80b:76017**

Dussan V., E. B. *See* **Kafka, Fred Y., 80m:76039**

van Duyn, C. J. Downstream development of velocity-profiles behind flat plates. **80c:76020**

Engelman, Michael *See* **Bercovier, Michel, 80c:76019**

Feuillebois, F. (*with* Lasek, A.) On the rotational historic term in non-stationary Stokes flow. **80c:76021**

Galdi, Giovanni P. *See* **Rionero, Salvatore, 80i:76021**

Goldstein, M. E. Scattering and distortion of the unsteady motion on transversely sheared mean flows. **80e:76016**

Goswami, B. (*with* Nanda, R. S.) Oscillating radial flow between two parallel rotating disks. (German summary) **80c:76022**

Griffiths, D. F. Finite elements for incompressible flow. **80j:76027**

Habarov, P. S. External Neumann problem for a displaced pair of elongated spheroids. (Russian) **80k:76040**

Hayashi, Daigoro Finite element formulation of viscous fluid based on a variational principle. (Japanese. English summary) **80m:76037**

Hinch, E. J. (*with* Leal, L. G.) Rotation of small nonaxisymmetric particles in a simple shear flow. **80g:76021**

Hocking, L. M. (*with* Moore, D. W.; Walton, I. C.) The drag on a sphere moving axially in a long rotating container. **80b:76010**

Janenko, N. N. Equations with sign changing diffusion coefficient. (Russian) **80g:76022**

Jeffrey, D. J. (*with* Sherwood, J. D.) Streamline patterns and eddies in low-Reynolds-number flow. **80m:76038**

Joseph, Daniel D. *See* **Yoo, Jung Y., 80d:76033** *and* **Liu, C. H., 80d:76034**

Kafka, Fred Y. (*with* Dussan V., E. B.) On the interpretation of dynamic contact angles in capillaries. **80m:76039**

Kim, Moon Uhn Two-dimensional slow viscous flow due to the motion of a cylinder on the center-line of a wedge. **80e:76017**

Slow viscous flow due to the motion of a sphere on the axis of a circular cone. **80k:76041**

Kotoryński, W. P. Slowly varying channel flows in three dimensions. **80k:76042**

Lasek, A. *See* **Feuillebois, F., 80c:76021**

Leal, L. G. *See* **Hinch, E. J., 80g:76021**

Lindsay, K. A. (*with* Straughan, B.) A thermodynamic viscous interface theory and associated stability problems. **80d:76029**

Liu, C. H. (*with* Joseph, Daniel D.) Stokes flow in conical trenches. **80d:76034**

Majumdar, S. R. (*with* O'Neill, M. E.) Asymmetric Stokes flows generated by the motion of a closed torus. (German summary) **80m:76040**

Mbom Abane, Samuel Calculation of Oseen flows past a circular cylinder at low Reynolds numbers. **80e:76018**

Mitra, P. Flow of a viscous incompressible dusty gas between two concentric co-axial circular cylinders. **80d:76030**

Moore, D. W. *See* **Hocking, L. M.; et al., 80b:76010**

Nanda, R. S. *See* **Goswami, B., 80c:76022**

Olson, Mervyn D. *See* **Tuann, Shih Yu, 80g:76023**

O'Neill, M. E. *See* **Dorrepaal, J. M., 80b:76017** *and* **Majumdar, S. R., 80m:76040**

Powell, John D. (*with* Batteh, Jad H.) Computer simulation of shock propagation in the one-dimensional lattice. **80d:76031**

Radjakin, N. K. Normal oscillations of a revolving liquid drop. (Russian) **80j:76028**

Raillson, J. M. Note on the Faxén relations for a particle in Stokes flow. **80e:76019**

Rasmussen, H. On an approximate solution for steady, viscous flow near a rotating disk. **80i:76020**

Reddy, J. N. On the accuracy and existence of solutions to primitive variable models of viscous incompressible fluids. **80b:76011**

Rionero, Salvatore (*with* Galdi, Giovanni P.) The weight function approach to uniqueness of viscous flows in unbounded domains. **80i:76021**

Saibel, E. A. *See* **Chow, P. L., 80d:76028**

Şandru, Nicolae *See* **Camenschi, Galina, 80k:76037**

Šešlić, Mane Some solutions of the fluid flow equations. **80j:76029**

Sherwood, J. D. *See* **Jeffrey, D. J., 80m:76038**

Singh, Shiva Nandan *See* **Dennis, S. C. R., 80g:76020**

Solonnikov, V. A. Solvability of the problem of the plane motion of a heavy viscous incompressible capillary fluid that partially fills a certain vessel. (Russian) **80f:76013**

Sthapit, Y. R. (*with* Datta, Subhendu K.) Stokes flow past a sphere with a time dependent source at its centre. **80c:76023**

Straughan, B. *See* **Lindsay, K. A., 80d:76029**

Syrovoi, V. A. Some examples of invariant solutions of equations of fluid mechanics. (Russian) **80d:76032**

True, Hans The direction of the secondary wave motion in the Ekman boundary layer. **80m:76041**

Tuann, Shih Yu (*with* Olson, Mervyn D.) Review of computing methods for recirculating flows. **80g:76023**

Walton, I. C. *See* **Hocking, L. M.; et al., 80b:76010**

Wang, Chang Yi (*with* Watson, Layne T.) Squeezing of a viscous fluid between elliptic plates. **80j:76030**

Watson, Layne T. *See* **Wang, Chang Yi, 80j:76030**

Yoo, Jung Y. (*with* Joseph, Daniel D.) Stokes flow in a trench between concentric cylinders. **80d:76033**

Secondary classifications:

Cheng, Sin I (*with* Shubin, Gregory) Computational accuracy and mesh Reynolds number. **(80a:65249)**

Glowinski, Roland (*with* Pironneau, O.) Numerical methods for the first biharmonic equation and the two-dimensional Stokes problem. **(80e:65101)**

Iosif'jan, G. A. The analogue of Saint-Venant's principle and the uniqueness of the solutions of the first boundary value problem for the Stokes system in domains with noncompact boundaries. (Russian) **(80c:35080)**

Majda, Andrew (*with* Osher, Stanley) Numerical viscosity and the entropy condition. **(80j:65031)**

Newell, Alan C. Near-integrable systems, nonlinear tunnelling and solitons in slowly changing media. **(80e:81093)**

Osher, Stanley *See* **Majda, Andrew, (80j:65031)**

Pironneau, O. *See* **Glowinski, Roland, (80e:65101)**

Russel, William B. The low-shear limit of the effective viscosity of a solution of charged macromolecules. **(80h:76049)**

Shubin, Gregory *See* **Cheng, Sin I, (80a:65249)**

76Exx Hydrodynamic stability

76E05 Stability of parallel flows

Atten, P. (*with* Lacroix, J. C.) Nonlinear hydrodynamic stability of liquids subjected to unipolar injection. (French summary) **80i:76022**

Chimonas, G. Algebraic disturbances in stratified shear flows. **80d:76035**

Jain, R. K. *See* **Kochar, G. T., 80e:76020**

Kochar, G. T. (*with* Jain, R. K.) Note on Howard's semicircle theorem. **80e:76020**

Lacroix, J. C. *See* **Atten, P., 80i:76022**

Warren, F. W. Hermitian forms and eigenvalue bounds. **80d:76036**

Secondary classifications:

Ahmadi, Goodarz *See* **Shahinpoor, M., (80g:76003)**

Gaur, M. *See* **Rai, A.; et al., (80d:76104)**

Rai, A. (*with* Gaur, M.; Ram, R. D.) Propagation of weak MHD discontinuities in an optically thin medium. **(80d:76104)**

Ram, R. D. *See* **Rai, A.; et al., (80d:76104)**

Shahinpoor, M. (*with* Ahmadi, Goodarz) Universal stability of thermo-Cosserat fluid motions. (Italian summary) **(80g:76003)**

Slemrod, M. Instability of steady shearing flows in a nonlinear viscoelastic fluid. **(80c:76004)**

76E10 Inertial instability

Karasalo, Ilkka Stability of axisymmetric annular fluid interfaces at zero contact angle. **80d:76037**
Seminara, Giovanni On Rayleigh's criterion for slowly varying flows. **80e:76021**

76E15 Convective instability

Banerjee, Mihir B. (*with* Gupta, J.; Gupta, S. K.) On the effect of rotation in the generalized Bénard problem. **80i:76023**
Blennerhassett, P. J. (*with* Hall, Philip) Centrifugal instabilities of circumferential flows in finite cylinders: linear theory. **80b:76012**
Chossat, Pascal Bifurcation and stability of convective flows in a rotating or not rotating spherical shell. **80k:76043**
de Coninck, Frédéric Interaction de modes faiblement amplifiés en instabilité convective. (English summary) **80d:76038**
Daniels, P. G. The effect of distant sidewalls on the transition to finite amplitude Bénard convection. II. **80d:76039**
Gupta, J. *See* **Banerjee, Mihir B.; et al., 80i:76023**
Gupta, S. K. *See* **Banerjee, Mihir B.; et al., 80i:76023**
Hall, Philip *See* **Blennerhassett, P. J., 80b:76012**
Hame, W. (*with* Müller, U.) Freie Konvektion in Schmelzen mit inneren Wärmequellen und verfestigten Rändern. (English summary) **80m:76042**
Müller, U. *See* **Hame, W., 80m:76042**

Secondary classifications:

Gerlah, N. I. (*with* Zueva, N. M.; Solov'ev, L. S.) The development of convective instability in a uniform magnetic field. (Russian. English summary) **(80k:85005)**
Matkowsky, Bernard J. (*with* Sivašinskiĭ, G. I.) Acceleration effects on the stability of flame propagation. **(80g:80005)**
Sivašinskiĭ, G. I. *See* **Matkowsky, Bernard J., (80g:80005)**
Solov'ev, L. S. *See* **Gerlah, N. I.; et al., (80k:85005)**
True, Hans Bifurcation of stationary solutions for the quasi-geostrophic equation with nonlinear boundary conditions. (Polish and Russian summaries) **(80c:86003)**
Zueva, N. M. *See* **Gerlah, N. I.; et al., (80k:85005)**

76E20 Instability of geophysical and astrophysical flows

Amarnath, T. *See* **Rajappa, N. R., 80b:76013**
Babenko, K. I. (*with* Petrovič, V. Ju.) The Rayleigh-Taylor instability. (Russian) **80f:76014**
Farrell, Brian *See* **Lindzen, Richard S.; et al., 80m:76043**
Grimshaw, R. H. J. On resonant over-reflexion of internal gravity waves from a Helmholtz velocity profile. **80e:76022**
Iooss, Gérard (*with* Nielsen, Hans Bruun; True, Hans) Bifurcation of the stationary Ekman flow into a stable periodic flow. **80e:76023**
Lindzen, Richard S. (*with* Farrell, Brian; Tung, Ka Kit) The concept of wave overreflection and its application to baroclinic instability. **80m:76043**
Nielsen, Hans Bruun *See* **Iooss, Gérard; et al., 80e:76023**
Petrovič, V. Ju. *See* **Babenko, K. I., 80f:76014**
Rajappa, N. R. (*with* Amarnath, T.) Corrigendum: "Nonlinear theory of Taylor instability of superposed fluids of different densities in three dimensions" (Quart. J. Mech. Appl. Math. **30** (1977), no. 2, 131–141). **80b:76013**
True, Hans *See* **Iooss, Gérard; et al., 80e:76023**
Tung, Ka Kit *See* **Lindzen, Richard S.; et al., 80m:76043**
Vladimirov, V. A. Stability of a tornado type flow. (Russian) **80e:76024**

Secondary classifications:

Kendall, William M. Unsteady two-cell similarity solution to a convective atmospheric vortex model. (Russian summary) **(80k:86009)**
Pedlosky, J. Finite-amplitude baroclinic waves in a continuous model of the atmosphere. **(80m:86006)**

76E25 Magnetohydrodynamic and electrohydrodynamic instabilities

Jain, Padam C. (*with* Prakash, C. V. S.) Stability of hydromagnetic flows in a temperature field. **80m:76044**
Prakash, C. V. S. *See* **Jain, Padam C., 80m:76044**

76E30 Nonlinear effects

Barcilon, A. (*with* Brindley, J.; Lessen, M.; Mobbs, F. R.) Marginal instability in Taylor-Couette flows at a very high Taylor number. **80k:76044**
Brindley, J. *See* **Barcilon, A.; et al., 80k:76044**
Daniels, P. G. (*with* Stewartson, Keith) On the spatial oscillations of a horizontally heated rotating fluid. II. **80a:76031**
Galdi, Giovanni P. Variational methods for stability of fluid motions in unbounded domains. **80g:76024**
Lessen, M. *See* **Barcilon, A.; et al., 80k:76044**
Mobbs, F. R. *See* **Barcilon, A.; et al., 80k:76044**
Smith, F. T. Nonlinear stability of boundary layers for disturbances of various sizes. **80k:76045a**
Corrections to: "Nonlinear stability of boundary layers for disturbances of various sizes" [Proc. Roy. Soc. London Ser. A **368** (1979), no. 1735, 573–589; MR 80k:76045]. **80k:76045b**
Stewartson, Keith *See* **Daniels, P. G., 80a:76031**

Secondary classifications:

Rosenblat, S. Asymmetric bifurcation. **(80j:35008)**

76E99 None of the above, but in this section

Alber, I. E. The effects of randomness on the stability of two-dimensional surface wavetrains. **80f:76015**
Bădoiu, Traian *See* **Georgescu, Adelina, 80d:76040**
Benney, D. J. (*with* Maslowe, S. A.) The evolution in space and time of nonlinear waves in parallel shear flows. **80m:76045**
Cebeci, Tuncer (*with* Stewartson, Keith) On stability and transition in three-dimensional flows. **80m:76046**
Droz, M. (*with* Enz, C. P.; Malaspinas, A.) Fokker-Planck description of a Navier-Stokes fluid with instability. **80j:76031**
Dubois-Violette, E. (*with* Manneville, P.) Stability of Couette flow in nematic liquid crystals. **80a:76032**
Duck, P. W. Flow induced by a torsionally oscillating wavy cylinder. **80f:76016**
Ekrat, Alan R. Energy stability for the flow between rotating, coaxial disks. **80k:76046**
Enz, C. P. *See* **Droz, M.; et al., 80j:76031**
Georgescu, Adelina (*with* Bădoiu, Traian) Bounds for linear stability characteristics of Couette and Poiseuille flows. **80d:76040**
Guiraud, Jean-Pierre (*with* Zeytounian, Radyadour Kh.) Note sur un mécanisme d'instabilité pour le coeur d'une nappe tourbillonnaire enroulée. (English summary) **80c:76024**
Infante, E. F. (*with* Walker, J. A.) A stability investigation for an incompressible simple fluid with fading memory. **80j:76032**
Malaspinas, A. *See* **Droz, M.; et al., 80j:76031**
Manneville, P. *See* **Dubois-Violette, E., 80a:76032**
Maslowe, S. A. *See* **Benney, D. J., 80m:76045**
Nayfeh, Ali Hasan Stability of three-dimensional boundary layers. **80m:76047**
Pulnačev, V. V. On the isolated liquid volume motion. (Polish and Russian summaries) **80e:76025**
Sacksteder, Richard Vibrations in fluid dynamics. **80j:76033**
Stewartson, Keith *See* **Cebeci, Tuncer, 80m:76046**
Van Stijn, Th. L. (*with* van de Vooren, A. I.) An accurate method for solving the Orr-Sommerfeld equation. **80j:76034**
Vasjaev, V. I. Stability of stationary vortices. (Russian) **80f:76017**
Velevič, L. R. Investigation of Helmholtz-Kelvin instability. (Russian. English summary) **80e:76026**
van de Vooren, A. I. *See* **Van Stijn, Th. L., 80j:76034**
Walker, J. A. *See* **Infante, E. F., 80j:76032**
Zeytounian, Radyadour Kh. *See* **Guiraud, Jean-Pierre, 80c:76024**

Secondary classifications:

Laedke, E. W. (*with* Spatschek, K. H.) Liapunov stability of generalized Langmuir solitons. **(80m:76027)**
Peckover, R. S. *See* **Turland, B. D., (80m:80012)**
Spatschek, K. H. *See* **Laedke, E. W., (80m:76027)**
Turland, B. D. (*with* Peckover, R. S.) The stability of planar melting fronts in two-phase thermal Stefan problems. **(80m:80012)**

76Fxx Turbulence [See also 58F13, 58F27, 60Gxx, 60Jxx.]

Secondary classifications:

Rabinovič, M. I. Stochastic self-oscillations and turbulence. **(80k:58076)**
Kyoto *See* **Turbulence and Navier-Stokes equations, (80m:76003)**
Navier-Stokes equations *See* **Turbulence and Navier-Stokes equations, (80m:76003)**
Symposium:
Turbulence and Navier-Stokes equations *See* **Turbulence and Navier-Stokes equations, (80m:76003)**
Turbulence and Navier-Stokes equations ★Turbulence and Navier-Stokes equations. (Japanese) **(80m:76003)**

76F05 Homogeneous isotropic turbulence

Bataille, Jean *See* **Lance, Michel; et al., 80c:76025**
Benjamin, T. B. Applications of generic bifurcation theory in fluid mechanics. **80d:76041**
(Bradshaw, Peter) *See* **Turbulence, 80d:76044**
Bychawski, Zbigniew (*with* Sztechman, Tomasz) On functional description method for turbulence of nonlinear rheological fluids. (Russian summary) **80d:76042**
Černyh, G. G. *See* **Lytkin, Ju. M., 80e:76028**
Charnay, Georges *See* **Lance, Michel; et al., 80c:76025**
Fournier, Jean-Daniel (*with* Frisch, Uriel) *d*-dimensional turbulence. **80a:76033**
See also **Sulem, Catherine; et al., 80b:76017**
Frisch, Uriel *See* **Fournier, Jean-Daniel, 80a:76033** *and* **Sulem, Catherine; et al., 80b:76017**
Gence, J. N. (*with* Schon, J. P.; Mathieu, Jean) Justification des approximations de Boussinesq pour la description d'une turbulence thermique et cinématique homogène. (English summary) **80b:76014**
Golovin, A. M. A phenomenological theory of turbulence. **80i:76024**
Horner, Heinz (*with* Lipowsky, Reinhard) On the theory of turbulence: a non-Eulerian renormalized expansion. **80m:76049**
Jaglom, A. M. *See* **Kader, B. A., 80a:76034**
Kader, B. A. (*with* Jaglom, A. M.) Similarity treatment of moving-equilibrium turbulent boundary layers in adverse pressure gradients. **80a:76034**
Kuznecov, V. R. An estimate of the correlation between pressure pulsations and velocity divergences in subsonic flows of variable density. (Russian) **80f:76018**
Lance, Michel (*with* Marie, Jean-Louis; Charnay, Georges; Bataille, Jean) Les équations de la turbulence dans un écoulement diphasique incompressible en l'absence de transfert de masse. (English summary) **80c:76025**
Lee, Jon Dynamical behavior of the fundamental triad-interaction system in

three-dimensional homogeneous turbulence. **80e:76027**

Lerche, I. Kinematic diffusion of scalar quantities in turbulent velocity fields. **80m:76050**

Lesieur, M. (*with* Schertzer, D.) Amortissement autosimilaire d'une turbulence à grand nombre de Reynolds. (English summary) **80b:76015**

Lipowsky, Reinhard *See* **Horner, Heinz, 80m:76049**

Lytkin, Ju. M. (*with* Černyh, G. G.) Calculations of correlation functions in isotropic turbulence. (Russian) **80e:76028**

Marie, Jean-Louis *See* **Lance, Michel; et al., 80c:76025**

Mathieu, Jean *See* **Gence, J. N.; et al., 80b:76014**

Orszag, Steven A. *See* **Tang, Chu Mei, 80b:76018**

Payne, Fred R. A second stage eddy-viscosity model for turbulent fluid flows: or, a universal statistical tool? **80f:76025**

Rayne, Fred R. The OLP method of nonlinear stability analysis of turbulence in Newtonian fluids. **80k:76047**

Rüdiger, Günther On the α-effect for slow and fast rotation. (German summary) **80d:76043**

Šarov, V. G. Integral method of calculating a turbulent boundary layer in a uniform gas stream. **80b:76016**

Schertzer, D. *See* **Lesieur, M., 80b:76015**

Schon, J. P. *See* **Gence, J. N.; et al., 80b:76014**

Sugavanam, A. *See* **Wu, J. C., 80c:76026**

Sulem, Catherine (*with* Fournier, Jean-Daniel; Frisch, Uriel; Sulem, Pierre Louis) Remarques sur un modèle unidimensionnel pour la turbulence magnétohydrodynamique. (English summary) **80b:76017**

Sulem, Pierre Louis *See* **Sulem, Catherine; et al., 80b:76017**

Szablewski, Witold ★Turbulente Scherströmungen. Freie Turbulenz. **80g:76025**

Sztechman, Tomasz *See* **Bychawski, Zbigniew, 80d:76042**

Tang, Chu Mei (*with* Orszag, Steven A.) Two-dimensional turbulence on the surface of a sphere. **80b:76018**

Wu, J. C. (*with* Sugavanam, A.) Method for the numerical solution of turbulent flow problems. **80c:76026**

Turbulence ★Turbulence. **80d:76044**

Secondary classifications:

Bardos, C. Équations de Navier-Stokes et modèle de la turbulence. (English summary) **(80g:35103)**

(*with* Penel, P.; Frisch, Uriel; Sulem, Pierre Louis) Modified dissipativity for a nonlinear evolution equation arising in turbulence. **(80f:35110)**

Demenin, O. M. (*with* Koroljuk, V. S.) Characteristic functionals of random wave fields in inhomogeneous media. (Russian) **(80d:82009)**

Frisch, Uriel *See* **Bardos, C.; et al., (80f:35110)**

Hasegawa, Akira (*with* Imamura, Tsutomu; Mima, Kunioki; Taniuti, Tosiya) Stationary spectrum of pseudo-three-dimensional electrostatic turbulence in magnetized plasmas. **(80c:78010)**

Imamura, Tsutomu *See* **Hasegawa, Akira; et al., (80c:78010)**

Koroljuk, V. S. *See* **Demenin, O. M., (80d:82009)**

Marčuk, G. I. Some mathematical problems on the preservation of the environment. (Russian) **(80a:92051)**

Mima, Kunioki *See* **Hasegawa, Akira; et al., (80c:78010)**

Pelletier, Guy Transition vers la turbulence de Langmuir forte. (English summary) **(80m:82044)**

Penel, P. *See* **Bardos, C.; et al., (80f:35110)**

Sulem, Pierre Louis *See* **Bardos, C.; et al., (80f:35110)**

Taniuti, Tosiya *See* **Hasegawa, Akira; et al., (80c:78010)**

Treve, Yvain M. Theory of chaotic motion with application to controlled fusion research. **(80f:70015)**

76F10 Shear flows

Jiménez, J. On the visual growth of a turbulent mixing layer. **80m:76051**

Kornoev, A. I. Similitude postulates in the theory of turbulent cocurrent flow. **80j:76035**

Secondary classifications:

Chuang, Sue Li (*with* Payne, Fred R.) A second-stage eddy-viscosity calculation for the flat-plate turbulent boundary layer. **(80m:76035)**

Payne, Fred R. *See* **Chuang, Sue Li, (80m:76035)**

76F99 None of the above, but in this section

Belocerkovskiĭ, S. M. (*with* Ništ, M. I.) Modeling of turbulent wakes in ideal fluids. **80j:76036**

Bernard, Peter S. A method for computing two-dimensional turbulent flows. **80m:76052**

Brujackiĭ, E. V. The integral method for the calculation of the initial part of a plane turbulent jet in a drifting flow. (Russian) **80j:76037**

Bulejev, N. I. Turbulent flows of incompressible liquids in various channels. **80c:76027**

Cantwell, B. J. Coherent turbulent structures as critical points in unsteady flow. (Polish and Russian summaries) **80m:76053**

Dekker, H. On the functional integral representation of general continuous Markov processes. **80a:76035**

Dudoladov, I. V. *See* **Taganov, G. I., 80e:76029**

Dunwoody, J. (*with* Nunziato, Jace W.) Nonlinear effects of temperature on simple shear flows of heat conducting viscoelastic fluids. **80c:76028**

(Fiedler, Heinrich) *See* **Structure and mechanisms of turbulence, 80h:76021a** *and* **Structure and mechanisms of turbulence, 80h:76021b**

Gorodcov, V. A. Self-similarity and weak closing relations for symmetric free turbulence. (Russian) **80f:76019**

Holloway, Greg Order and disorder in nonlinear fluid motions. **80f:76020**

Kerr, Robert M. (*with* Siggia, Eric D.) Cascade model of fully developed turbulence. **80d:76045**

Kida, Shigeo Asymptotic properties of Burgers turbulence. **80h:76018**

Kljačkin, V. I. Probabilistic structure of the sound pressure field generated by turbulence. (Russian) **80j:76038**

Koper, Chester A., Jr. (*with* Sadeh, Willy Z.; Turner, Robert E.) A relation between the Lagrangian and Eulerian turbulent velocity autocorrelations. **80a:76036**

Levitan, Ju. L. *See* **Rožděstvenskiĭ, B. L.; et al., 80h:76020**

Liepmann, H. W. The rise and fall of ideas in turbulence. **80h:76019**

Mazumdar, H. P. On the pressure fluctuations associated with a general type of turbulence. **80m:76054**

Moiseenko, B. D. *See* **Rožděstvenskiĭ, B. L.; et al., 80h:76020**

Ništ, M. I. *See* **Belocerkovskiĭ, S. M., 80j:76036**

Nørsett, Syvert P. On using the Du Fort Frankel scheme for determination of the velocity profile in turbulent boundary layer along an oscillating wall. **80k:76048**

Novikov, E. A. (*with* Sedov, Ju. B.) Stochastic properties of a four-vortex system. **80g:76026**

Nunziato, Jace W. *See* **Dunwoody, J., 80c:76028**

Onufriev, A. T. Model equation for the probability density in the semi-empirical theory of turbulent transport. **80j:76039**

Piest, J. Korrelationsfunktionen des Gleichgewichts und kinetische Theorie turbulenter Strömungen. **80j:76040**

Pozzoli, Roberto (*with* Ryutov, Dmitri D.) Modulational instability produced by Langmuir turbulence in a magnetic field. **80f:76021**

Prilmak, V. G. *See* **Rožděstvenskiĭ, B. L.; et al., 80h:76020**

Rožděstvenskiĭ, B. L. (*with* Levitan, Ju. L.; Moiseenko, B. D.; Prilmak, V. G.; Sidorova, V. K.) Methods of numerical modeling of turbulent flows of an incompressible viscous fluid. (Russian) **80h:76020**

Ryutov, Dmitri D. *See* **Pozzoli, Roberto, 80f:76021**

Sadeh, Willy Z. *See* **Koper, Chester A., Jr.; et al., 80a:76036**

Saffman, P. G. Problems and progress in the theory of turbulence. **80h:76022**

Schlesinger, Robert E. Nonlinear eddy-viscosity turbulence parameterization in anelastic three-dimensional flow: some mathematical aspects. **80f:76022**

Sedov, Ju. B. *See* **Novikov, E. A., 80g:76026**

Sidorova, V. K. *See* **Rožděstvenskiĭ, B. L.; et al., 80h:76020**

Siggia, Eric D. *See* **Kerr, Robert M., 80d:76045**

Stern, Melvin E. Inequalities and variational principles for turbulent transport. **80k:76049**

Struminskiĭ, V. V. A new trend in analysis of turbulence. **80j:76041**

Taganov, G. I. (*with* Dudoladov, I. V.) Application of results of analysis of transient vortex flows of ideal fluids to description of the turbulent mixing layer. **80e:76029**

Turner, Robert E. *See* **Koper, Chester A., Jr.; et al., 80a:76036**

Yorke, Ellen D. *See* **Yorke, James A., 80f:76023**

Yorke, James A. (*with* Yorke, Ellen D.) Metastable chaos: the transition to sustained chaotic behavior in the Lorenz model. **80f:76023**

Berlin *See* **Structure and mechanisms of turbulence, 80h:76021a** *and* **Structure and mechanisms of turbulence, 80h:76021b**

Structure and mechanisms of turbulence ★Structure and mechanisms of turbulence. I. **80h:76021a**

★Structure and mechanisms of turbulence. II. **80h:76021b**

Symposium:

Turbulence *See* **Structure and mechanisms of turbulence, 80h:76021a** *and* **Structure and mechanisms of turbulence, 80h:76021b**

Turbulence *See* **Structure and mechanisms of turbulence, 80h:76021a** *and* **Structure and mechanisms of turbulence, 80h:76021b**

Secondary classifications:

Bakaĭ, A. S. Asymptotic methods in theoretical physics. (Russian) **(80f:82002)**

Belocerkovskiĭ, O. M. (*with* Janickiĭ, V. E.) Statistical modeling of flows of ideal monatomic gases. **(80j:82016)**

Fujisaka, Hirokazu (*with* Mori, Hazime) A maximum principle for determining the intermittency exponent μ of fully developed steady turbulence. **(80g:82007)**

Janickiĭ, V. E. *See* **Belocerkovskiĭ, O. M., (80j:82016)**

Mori, Hazime *See* **Fujisaka, Hirokazu, (80g:82007)**

Sonechkin, D. M. On bifurcations inducing a strange attractor in the system of A. M. Oboukhov. **(80f:58030)**

76Gxx General aerodynamics and subsonic flows

Secondary classifications:

Fromme, J. A. (*with* Golberg, Michael A.) Aerodynamic interference effects on oscillating airfoils with controls in ventilated wind tunnels. **(80m:76011)**

Golberg, Michael A. *See* **Fromme, J. A., (80m:76011)**

76G05 Hodograph methods

Damodaran, K. A. *See* **Rajan, S. C., 80c:76029**

Popp, Simona Numerical evaluations of compressibility corrections in wake flows. **80d:76046**

Rajan, S. C. (*with* Damodaran, K. A.) Hodograph transformation. **80c:76029**

76G10 Kármán-Tsien approximation

76G15 Iterative methods

Čmyr', G. I. Application of a method of integral equations for the calculation of the flow around gratings of turbomachines by a subsonic flow of gas. (Russian) **80d:76047**

76G20 Free-streamline theory

Hanin, V. M. A potential model of the Coanda effect. (Russian) **80d:76048**
Meister, E. Einige gemischte Randwertprobleme für Unterschallströmungen um schwingende Profile. **80e:76030**

76G99 None of the above, but in this section

Clavaldini, Jean-François (*with* Pogu, Marc; Tournemine, Georges) A method for computing compressible flows past a profile set between permeable walls. (Polish and Russian summaries) **80a:76037**
Davydov, Ju. M. Investigation of multiparametric splitting schemes for problems of aerodynamics by the method of differential approximations of Janenko-Šokin. (Russian) **80k:76050**
Ebin, David G. The initial-boundary value problem for subsonic fluid motion. **80i:76026**
Meister, E. Some mixed boundary value problems in the theory of subsonic flow past oscillating profiles. (Russian summary) **80a:76038**
Pogu, Marc *See* **Clavaldini, Jean-François; et al., 80a:76037**
Tournemine, Georges *See* **Clavaldini, Jean-François; et al., 80a:76037**

Secondary classifications:

Berkey, Dennis D. (*with* Freedman, Marvin I.) Buckled elastica at contact: a perturbation analysis. **(80g:73041)**
Freedman, Marvin I. *See* **Berkey, Dennis D., (80g:73041)**
Iacob, Caius Methods for solving the plane Dirichlet problem in some special cases. (Russian summary) **(80d:30039)**

76H05 Transonic flows, limit lines

Chattot, J. J. (*with* Guiu-Roux, J.; Laminie, J.) Résolution numérique d'une équation de conservation par une approche variationnelle. **80h:76023**
Cook, L. Pamela Errata: "A uniqueness proof for a transonic flow problem" (Indiana Univ. Math. J. **27** (1978), no. 1, 51–71). **80b:76019**
Lifting-line theory for a swept wing at transonic speeds. **80h:76024**
Diesperov, V. N. Second approximation in the theory of nonequilibrium flows with transonic velocities. (Russian) **80d:76050**
Garabedian, P. R. Transonic flow over wing-body combinations. (Russian summary) **80m:76039**
Guiu-Roux, J. *See* **Chattot, J. J.; et al., 80h:76023**
Jameson, Antony Numerical calculation of transonic flow past a swept wing by a finite volume method. **80g:76027**
Laminie, J. *See* **Chattot, J. J.; et al., 80h:76023**
Mansonov, E. V. An equation of small perturbations in a non-steady-state transonic flow of gas. (Russian) **80d:76049**
Seth, B. R. Transonic operator and number. (Russian summary) **80a:76040**
Tseng, Wei On transonic flow in a nozzle. **80k:76051**

Secondary classifications:

Morawetz, Cathleen S. A regularization for a simple model of transonic flow. **(80b:35119)**
Sibner, L. M. (*with* Sibner, R. J.) Transonic flow on an axially symmetric torus. **(80k:58004)**
Sibner, R. J. *See* **Sibner, L. M., (80k:58004)**

76Jxx Supersonic flows

76J05 Hodograph methods

76J10 Method of characteristics

Barron, Ronald M. Oscillating airfoils. I. Wedges of arbitrary thickness in supersonic and hypersonic flow. **80b:76020**

76J99 None of the above, but in this section

Chan, Wang Kit *See* **Holt, Maurice, 80g:76028**
Daniels, P. G. Laminar boundary-layer reattachment in supersonic flow. **80e:76030**
Dulov, V. G. Mathematical model of an oscillatory cycle in the nonstationary interaction of a supersonic jet with a barrier. (Russian) **80b:76021**
Dutt, H. N. V. (*with* Sreekanth, A. K.) Optimum two-dimensional wings in supersonic flows. **80d:76051**
Esin, A. I. Shock-free flow in the vicinity of a convex corner. (Russian) **80d:76052**
Holt, Maurice (*with* Chan, Wang Kit) Laminar separation in high speed conical flows. **80g:76028**
Mačmuja, M. I. Calculation of the flow of a viscous gas in a supersonic nozzle with account taken of oscillatory disequilibrium. (Russian) **80g:76029**
Ruban, A. I. A numerical solution of the local asymptotic problem on the nonstationary separation of the laminar boundary layer in a supersonic flow. (Russian) **80c:76031**
Sreekanth, A. K. *See* **Dutt, H. N. V., 80d:76051**
Tumalev, G. G. An inverse problem in the theory of supersonic gas flow. (Russian) **80c:76031**
Welland, C. Calculation of three-dimensional stationary supersonic flow fields by applying the "progonka" process to a conservative formulation of the governing equations. **80a:76041**

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Antonov, A. M. (*with* Bělov, Ju. A.) The behavior of the solutions of a class of nonlinear boundary value problems with a free boundary. (Russian) **(80f:35023)**
Bělov, Ju. A. *See* **Antonov, A. M., (80f:35023)**
Sibner, L. M. (*with* Sibner, R. J.) Nonlinear Hodge theory: applications. **(80h:58058)**
Sibner, R. J. *See* **Sibner, L. M., (80h:58058)**

76K05 Hypersonic flows

Antonova, A. M. (*with* Dzvonik, L. Ĭ.) Solution of a mixed boundary value problem of flow around a thin triangular airfoil. (Russian) **80f:76024**
Dzvonik, L. Ĭ. *See* **Antonova, A. M., 80f:76024**
Titov, O. V. Existence theorems for the solution of self-similar boundary value problems of hypersonic viscous shock layer. (Russian) **80e:76032**

76L05 Shock waves and blast waves [See also 73D05.]

Ambar, M. (*with* Upadhyaya, K. S.) Compatibility conditions for the surface of discontinuity in pseudoflow. **80k:76052**
Bežanov, K. A. Irregular interaction of a moving shock wave with a tangential discontinuity. **80e:76033**
Bhowmick, J. B. A method to find out flow variables behind the shock surface in strong point explosions in axi-symmetric media. **80a:76042**
Bogaevskiĭ, V. N. (*with* Povzner, A. Ja.) On one-dimensional shock waves. (French and German summaries) **80g:76039**
Boillat, Guy (*with* Ruggeri, Tommaso) Limite de la vitesse des chocs dans les champs à densité d'énergie convexe. (English summary) **80i:76027**
Bowen, Ray M. (*with* Chen, P. J.) Some properties of curved shock waves in ideal fluid mixtures with multiple temperatures. (German summary) **80k:76053**
Bulavackiĭ, V. M. (*with* Lavrik, V. I.; Lučko, Ĭ. A.) Certain two-dimensional boundary value problems of the impulse-hydrodynamic theory of an ejection blast. (Russian) **80d:76053**
Solution of boundary value problems of the impulse-hydrodynamic theory of an ejection blast in layered media. (Russian) **80k:76054**
Čeban, V. G. (*with* Sabodaš, P. F.; Tihomirov, N. A.) Some homogeneous transient motions of an incompressible fluid caused by the motion of a piston and by the generation of energy. (Russian) **80d:76054**
Chen, P. J. (*with* McCarthy, M. F.) Unsteady flow of incompressible fluids in deformable tubes. (German summary) **80k:76055**
See also **Bowen, Ray M., 80k:76053**
Dem'janov, Ju. A. (*with* Pokrovskiĭ, A. N.; Frolov, L. G.) The formation of a trace in the case of a shock wave descending on the edge of a plate. (Russian) **80f:76025**
Ermolin, E. V. *See* **Goremykin, E. B., 80g:76031**
Frolov, L. G. *See* **Dem'janov, Ju. A.; et al., 80f:76025**
Goremykin, E. B. (*with* Ermolin, E. V.) Formation of shock waves of large intensity by means of a system of weak shock waves. (Russian) **80g:76031**
Grin', V. T. (*with* Kraĭko, A. N.; Tillĭaeva, N. I.; Šironosov, V. A.) Analysis of one-dimensional flow stability in a channel with arbitrary variation of stationary flow parameters between the closing shock cross section and channel outlet. **80f:76026**
Grinfel'd, M. A. Spreading of weak discontinuities in an ideal barotropic liquid. (Russian) **80f:76027**
Jain, S. K. *See* **Shankar, Rama, 80d:76055**
Janenko, N. N. (*with* Vorožcov, E. V.) On the theory of differential analyzers of contact discontinuities. (Russian) **80h:76025**
Kraĭko, A. N. *See* **Grin', V. T.; et al., 80f:76026**
Lavrik, V. I. *See* **Bulavackiĭ, V. M.; et al., 80d:76053**
Lax, Peter D. The numerical solution of the equations of fluid dynamics. **80i:76028**
Lučko, Ĭ. A. *See* **Bulavackiĭ, V. M.; et al., 80d:76053**
Maxwell, A. R. A variational principle for steady homenergic compressible flow with finite shocks. **80m:76055**
McCarthy, M. F. *See* **Chen, P. J., 80k:76055**
Morro, Angelo Interaction of shock waves with acoustic waves. (Italian summary) **80k:76056**
Nixon, D. The transonic integral equation method with curved shock waves. (German summary) **80h:76026**
Pokrovskiĭ, A. N. *See* **Dem'janov, Ju. A.; et al., 80f:76025**
Povzner, A. Ja. *See* **Bogaevskiĭ, V. N., 80g:76030**
Prasad, Baleshwar (*with* Rai, R. P.) On radiative boundary shock waves. **80e:76032**
Rai, R. P. *See* **Prasad, Baleshwar, 80e:76032**
Ruggeri, Tommaso *See* **Boillat, Guy, 80i:76027**
Sabodaš, P. F. *See* **Čeban, V. G.; et al., 80d:76054**
Shankar, Rama (*with* Jain, S. K.) Formation of shock waves in dissociating gases. **80d:76055**
Sharma, V. D. (*with* Shyam, Radhe) Growth of discontinuities in fluids with internal relaxation. **80j:76042**
See also **Singh, Ram Sharan, 80k:76057**
Shyam, Radhe *See* **Sharma, V. D., 80j:76042**
Singh, Ram Sharan (*with* Sharma, V. D.) The growth of discontinuities in a nonequilibrium flow of a relaxing gas. **80k:76057**
Šironosov, V. A. *See* **Grin', V. T.; et al., 80f:76026**
Teĭukov, V. M. Construction of the front of a shock wave in the three-dimensional piston problem. (Russian) **80d:76056**
Tihomirov, N. A. *See* **Čeban, V. G.; et al., 80d:76054**
Tillĭaeva, N. I. *See* **Grin', V. T.; et al., 80f:76026**
Titarenko, V. V. Asymptotic investigations of some self-similar interactions of shock waves. (Russian) **80e:76034**
Upadhyaya, K. S. *See* **Ambar, M., 80k:76052**
Verma, B. G. (*with* Vishwakarma, J. P.) Axially symmetric explosion in magnetogasdynamics. **80m:76056**
Vishwakarma, J. P. *See* **Verma, B. G., 80m:76056**
Vorožcov, E. V. *See* **Janenko, N. N., 80h:76025**
Włodarczyk, Edward A local closed-form solution of the problem of propagation of a nonstationary plane shock wave in a polytropic medium. (Polish and Russian summaries) **80d:76057**

Intense rarefaction shock wave generated in a perfect gas by moving thermal sources. (Polish and Russian summaries) **80j:76043**

A closed-form solution of the propagation problem of a nonstationary shock wave in a polytropic plastic gas. (Russian summary) **80i:76029**

Xiao, Ling (*with* Zhang, Tong) Interactions of elementary waves in one-dimensional adiabatic flow. (Chinese. English summary) **80k:76058**

Zhang, Tong *See* **Xiao, Ling, 80k:76058**

Secondary classifications:

Bilitein, Ju. M. (*with* Čeban, V. G.) Shock waves that spread at the rate of elastic perturbations in visco-elastic media. (Russian) **80c:73035**

Čeban, V. G. *See* **Bilitein, Ju. M., 80c:73035**

Chakraborty, T. K. Propagation of plane relativistic shock waves in a slowly moving medium. **80m:76068**

Lax, Peter D. Recent methods for computing discontinuous solutions—a review. **80j:65039**

Maugin, Gérard A. Formation de chocs dans les solides en relativité. (English summary) **80k:83036**

Prasad, Baleshwar On radiative magnetogasdynamic boundary shock wave. **80j:76052**

Ray, G. Deb Similarity solutions for plane relativistic flow in a homogeneous medium. **80g:76055**

76M05 Nonhomentropic flows of compressible fluids

Secondary classifications:

Clavaldini, Jean-François (*with* Pogu, Marc; Tournemine, Georges) A method for computing compressible flows past a profile set between permeable walls. (Polish and Russian summaries) **80a:76037**

Pogu, Marc *See* **Clavaldini, Jean-François; et al., 80a:76037**

Tournemine, Georges *See* **Clavaldini, Jean-François; et al., 80a:76037**

76Nxx Compressible fluids and gas dynamics, general

Secondary classifications:

Hamitova, R. S. The basis of conservation laws in mechanics. (Russian) **80k:70029**

Kljačkin, V. I. Probabilistic structure of the sound pressure field generated by turbulence. (Russian) **80j:76038**

76N05 Boundary layer theory

Aiković, R. *See* **Jovanović, J.; et al., 80h:76030**

Bodouyi, R. J. Transonic laminar boundary-layer flow near convex corners. **80h:76027**

Cebeci, Tuncer (*with* Keller, Herbert B.; Williams, Peter G.) Separating boundary-layer flow calculations. **80h:76028**

(*with* Stewartson, Keith; Williams, Peter G.) On the response of a stagnation boundary layer to a change in the external velocity. **80h:76022**

Chi, L. K. (*with* Wen, Shih Liang) Solutions to higher-order boundary-layer equations for flow over a semi-infinite plate. **80h:76029**

Curle, N. Effects of a sharp pressure rise on a compressible laminar boundary layer, when the Prandtl number is $\sigma = 0.72$. **80k:76059**

Đurić, M. *See* **Jovanović, J.; et al., 80h:76030**

Garisto, Frank (*with* Mazur, P.) Brownian motion near the Bénard-Rayleigh instability. **80d:76058**

Georgantopoulos, G. A. *See* **Pande, G. C.; et al., 80c:76034**

Goudas, C. L. *See* **Pande, G. C.; et al., 80c:76034**

Gribben, R. J. Finite-amplitude high-frequency oscillations in a compressible laminar boundary layer. **80i:76030**

Gustavsson, L. Håkan Initial value problem for boundary layer flows. **80m:76057**

Husnutdinova, N. V. Extension of the boundary layer beyond the point with zero stress friction on the wall. (Russian) **80c:76033**

Continuous extension of a boundary layer with increase in pressure. (Russian) **80f:76028**

Well-posedness of boundary value problems for a system of equations of a thermal boundary layer. (Russian) **80k:76060**

Jovanović, J. (*with* Aiković, R.; Đurić, M.) Approximations supérieures dans la théorie de la couche limite nonstationnaire et leur traitement paramétrique. **80h:76030**

Keller, Herbert B. *See* **Cebeci, Tuncer; et al., 80h:76028**

Krishna Prasad, K. *See* **Venkateshan, S. P., 80b:76025**

Mazur, P. *See* **Garisto, Frank, 80d:76058**

Misra, U. N. *See* **Singh, Punyatma; et al., 80i:76032**

Nguyen Hung Nouvelle approche numérique des solutions de la couche limite laminaire incompressible en regime non-stationnaire autour d'une paroi cylindrique elliptique mise en impulsion brutale. (English and German summaries) **80d:76059**

Pande, G. C. (*with* Georgantopoulos, G. A.; Goudas, C. L.) Free convection effects on the unsteady laminar boundary-layer flow past a porous limiting surface with uniform suction in stellar atmospheres. **80c:76034**

Riley, N. Separation from a smooth surface in a slender conical flow. **80b:76023**

Rizzetta, D. P. Asymptotic solutions of the energy equation for viscous supersonic flow past corners. **80b:76024**

Robert, K. Three-dimensional boundary layer theory using shell geometrical concepts. **80c:76035**

Rylov, O. S. (*with* Terent'ev, E. D.) An unsteady boundary layer with self-induced pressure. **80c:76035**

Schwierz, K.-P. Abschätzungen für die "Görtler-Funktionen". **80i:76031**

Sharma, V. P. *See* **Singh, Punyatma; et al., 80i:76032**

Singh, Punyatma (*with* Sharma, V. P.; Misra, U. N.) Fluctuating boundary layer on a heated horizontal plate. (Spanish summary) **80i:76032**

Slepcov, A. G. Estimates of the eigenvalues of equations of the stability of a compressible boundary layer. (Russian) **80d:76060**

Soppa, M. S. Boundary value problems for equations of a multicomponent boundary layer with a general diffusion matrix. (Russian) **80e:76036**

Stewartson, Keith *See* **Cebeci, Tuncer; et al., 80h:76022**

Terent'ev, E. D. *See* **Rylov, O. S., 80c:76035**

Venkateshan, S. P. (*with* Krishna Prasad, K.) Radiative interactions in boundary layers. **80b:76025**

Volodin, A. G. (*with* Zel'man, M. B.) Resonance interaction of Tollmien-Schlichting waves in a boundary layer. (Russian) **80g:76032**

Wen, Shih Liang *See* **Chi, L. K., 80h:76029**

Williams, Peter G. *See* **Cebeci, Tuncer; et al., 80h:76022** *and* **Cebeci, Tuncer; et al., 80h:76028**

Zel'man, M. B. *See* **Volodin, A. G., 80g:76032**

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Hayashi, Kiyoshi The asymptotic behavior of the boundary layer equation. **80e:34024**

Lazzari, Barbara The existence of a potential for isothermic viscous fluids. (Italian. English summary) **80e:80005**

Samohin, V. N. Generalized solutions of the problem on the continuation of the boundary layer of a pseudoplastic fluid. (Russian) **80a:35113**

Šarov, V. G. Integral method of calculating a turbulent boundary layer in a uniform gas stream. **80b:76016**

76N10 Compressible fluids, general

Andreev, V. K. On the problem of the unsteady motion of a compressible fluid with a free boundary. (Russian) **80g:76033**

Clavaldini, Jean-François (*with* Pogu, Marc; Tournemine, Georges) Nouvelle estimation de l'erreur de troncature pour le calcul d'écoulements compressibles portants. (English summary) **80m:76058**

Dragoş, Lazăr Solutions fondamentales dans la mécanique des fluides visqueux en mouvement uniforme. **80m:76059**

Gostincev, Ju. A. (*with* Uspenskiĭ, O. A.) On the theory of turbulent vortex flows of an ideal gas in Laval nozzles. (Russian) **80d:76061**

Greywall, Mahesh S. Streamwise computation of duct flows. **80m:76060**

Kažihov, A. V. Some questions of the theory of Navier-Stokes equations of a compressible fluid. (Russian) **80k:76061**

Liu, V. C. *See* **Ying, S. J., 80d:76063**

MacCormack, Robert W. An efficient explicit-implicit-characteristic method for solving the compressible Navier-Stokes equations. **80m:76061**

Mihailov, V. V. Flow of gas from a finite container through a Laval nozzle. (Russian) **80a:76043**

Pogu, Marc *See* **Clavaldini, Jean-François; et al., 80m:76058**

Shimborski, Ehud Variational methods applied to the study of symmetric flows in Laval nozzles. **80d:76062**

Tani, Atusi On the asymptotic behavior for the solution of one model of one-dimensional compressible viscous fluid flow. **80e:76037**

Tournemine, Georges *See* **Clavaldini, Jean-François; et al., 80m:76058**

Uspenskiĭ, O. A. *See* **Gostincev, Ju. A., 80d:76061**

Wilhelm, H. E. Lagrangian and Hamiltonian formulations of compressible hydrodynamics. **80g:76034**

Ying, S. J. (*with* Liu, V. C.) An extension of MacCormack's method for flows with higher-order equations and in different configurations. **80d:76063**

Zubov, E. N. Three-dimensional steady-state flows of an ideal gas with degenerate hodograph in the presence of a Bernoulli integral. (Russian) **80d:76064**

Secondary classifications:

Carey, G. F. (*with* Pan, T. T.; Renka, R.) Two problems in nonlinear finite element analysis. **(80g:65110)**

Förste, Joachim Zur Theorie kompressibler mikropolarer Flüssigkeiten. **(80a:35102)**

Pan, T. T. *See* **Carey, G. F.; et al., (80g:65110)**

Renka, R. *See* **Carey, G. F.; et al., (80g:65110)**

76N15 Gas dynamics, general

Aoki, Kazuo (*with* Inamuro, Takaji; Onishi, Yoshimoto) Slightly rarefied gas flow over a body with small accommodation coefficient. **80i:76033**

Barmin, A. A. (*with* Golubin, N. V.) The stability of an ionizing shock wave in an electromagnetic field. (Russian) **80c:76036**

Bautin, S. P. Study of the domain of convergence of special series that solve certain problems of gas dynamics. (Russian) **80h:76031**

Burstein, Samuel Z. Combustion instability. **80d:76065**

Bykovcev, G. I. (*with* Durova, V. N.) The ray method for solving the equations of gas dynamics. (Russian) **80d:76066**

Celmiņš, Aivars Critical review of one-dimensional tube flow equations. **80d:76067**

Cheng, Sin I Errors in finite difference solutions of Navier-Stokes equations. **80k:76032**

See also **Shubin, Gregory, 80e:76039**

Cupin, V. A. *See* **Maslov, V. P., 80i:76036**

Danaev, N. T. (*with* Liseĭkin, V. D.; Janenko, N. N.) The method of moving coordinates in gas dynamics. (Russian) **80h:76026**

Durova, V. N. *See* **Bykovcev, G. I., 80d:76066**

Fedotova, Z. I. Study of the approximate viscosity of difference schemes for two-dimensional equations of gas dynamics. (Russian) **80c:76037**

Friedrich, N. Lösung von Randwertproblemen der Schwingungsgleichung für ein Modell eines Triebwerkeinlaufs. (English summary) **80h:76033**

Friedrichs, K. O. On the mathematical theory of deflagrations and detonations. **80c:76038**

Frühauf, Michael Charakteristikenverfahren zur numerischen Lösung einer Aufgabe der instationären Gasdynamik. **80e:76038**

Fomin, V. M. *See* **Janenko, N. N.; et al., 80j:76044**

Gadžiev, A. D. (*with* Pisarev, V. N.) The implicit finite difference method "rhombus" for numerical solution of the gas dynamics equations with heat conduction. (Russian) **80g:76035**

(*with* Pisarev, V. N.) "ROMB": an implicit finite-difference method for the numerical solution of equations of gas dynamics with heat conduction. (Russian) **80m:76062**

Gavrilukin, I. B. A class of solutions of problems of supersonic gas flow around bodies of revolution. (Russian) **80c:76039**

Gmadiew, Asgat (*with* Will, Dieter) Untersuchungen zur instationären Gas- und Flüssigkeitsströmung durch Drosselelemente. **80h:76034**

Gol'din, V. Ja. *See* **Volčinskaja, M. I.; et al., 80k:76064**

Gol'dina, D. A. *See* **Volčinskaja, M. I.; et al., 80k:76064**

Golubin, N. V. *See* **Barmin, A. A., 80c:76036**

Golubinskiĭ, A. I. (*with* Syčev, V. V.) Some conservation properties of the rotational flows of a gas. (Russian) **80g:76036**

Hairullina, O. B. *See* **Sidorov, A. F., 80d:76071**

Hedstrom, G. W. Nonreflecting boundary conditions for nonlinear hyperbolic systems. **80i:76034**

Idijatullina, F. L. *See* **Ivanov, M. Ja., 80c:76040**

Inamuro, Takaji *See* **Aoki, Kazuo; et al., 80i:76033**

Ivanov, M. Ja. (*with* Idijatullina, F. L.) On the calculation of smooth stationary flows of an ideal gas by a method of third-order accuracy. (Russian) **80c:76040**

Janenko, N. N. (*with* Lisseikin, V. D.; Kovenja, V. M.) The method of the solution of gas dynamical problems in moving meshes. **80g:76037**

(*with* Kovenja, V. M.; Liseĭkin, V. D.; Fromin, V. M.; Vorožcov, E. V.) On some methods for the numerical simulation of flows with complex structure. **80j:76044**

See also **Danaev, N. T.; et al., 80b:76026**; **Kovenja, V. M., 80d:76069** *and* **Raspopov, V. E.; et al., 80f:76030**

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Kassoy, D. R. The response of a confined gas to a thermal disturbance. I. Slow transients. **80d:76068**

Kentzer, Cz. P. Generalization of the concept of Riemann invariants for multidimensional gasdynamics. **80i:76035**

Kovenja, V. M. (*with* Tarnavskiĭ, G. A.) A method for the solution of three-dimensional equations of gas dynamics. (Russian) **80c:76041**

(*with* Janenko, N. N.) A difference scheme on movable grids for the solution of equations of a viscous gas. (Russian) **80d:76069**

See also **Janenko, N. N.; et al., 80g:76037** *and* **Janenko, N. N.; et al., 80j:76044**

Kuzjuk, V. A. *See* **Volčinskaja, M. I.; et al., 80k:76064**

Liseĭkin, V. D. *See* **Danaev, N. T.; et al., 80b:76026** *and* **Janenko, N. N.; et al., 80j:76044**

Lisseikin, V. D. *See* **Janenko, N. N.; et al., 80g:76037**

Liu, Gao Lian Generalized variational principles, variational principles and dual extremum principles of gasdynamics for the direct problem of turbomachine airfoil cascades on an arbitrary stream sheet of revolution. (Chinese. English summary) **80h:76062**

Ljapidevskiĭ, V. Ju. (*with* Mamontov, E. V.; Tešukov, V. M.) Problems of non-steady-state gas dynamics. (Russian) **80k:76063**

Makaŝev, N. K. Boundary conditions for equations of gas dynamics that correspond to the upper estimates of the Chapman-Enskog method for the solution of the Boltzmann equation. (Russian) **80f:76029**

Mamontov, E. V. *See* **Ljapidevskiĭ, V. Ju.; et al., 80k:76063**

Maslov, V. P. (*with* Cupin, V. A.) Necessary conditions for the existence of infinitely narrow solitons in gas dynamics. (Russian) **80i:76036**

Moretti, Gino The λ-scheme. **80j:76045**

Mortell, M. P. (*with* Seymour, B. R.) Nonlinear forced oscillations in a closed tube: continuous solutions of a functional equation. **80h:76035**

Ouhibi, Yoshimoto *See* **Aoki, Kazuo; et al., 80i:76033**

Osipov, I. L. (*with* Paščenko, V. P.; Šipilin, A. V.) The computation of flows of a nonviscous gas in channels with a strongly changing cross-section. (Russian) **80b:76027**

Paščenko, V. P. *See* **Osipov, I. L.; et al., 80b:76027**

Pavlov, K. B. (*with* Pokrovskiĭ, L. D.; Taranenko, S. N.) The stationary flow of an inviscid heat conducting gas. (Russian) **80d:76070**

Pisarev, V. N. *See* **Gadžiev, A. D., 80g:76035** *and* **Gadžiev, A. D., 80m:76062**

Pokotaev, S. I. Equations of nonisentropic motion of gases. (Russian) **80h:76036**

Pokrovskiĭ, L. D. *See* **Pavlov, K. B.; et al., 80d:76070**

Popov, Ju. P. *See* **Poveščenko, Ju. A., 80b:76028**

Poveščenko, Ju. A. (*with* Popov, Ju. P.) Some problems of gas dynamics with sources. (Russian) **80b:76028**

Raspopov, V. E. (*with* Šapeev, V. P.; Janenko, N. N.) *D*-properties of a system of equations of symmetric gas flows. (Russian) **80f:76030**

Rusanov, V. V. On mixed gas flows. (Russian) **80j:76046**

Šapeev, V. P. *See* **Raspopov, V. E.; et al., 80f:76030**

Schlüter, V. V. Stabilization of the solution of a model problem on the motion of a piston in a viscous gas. (Russian) **80c:76042**

Severinov, L. I. A method for the solution of nonlinear difference boundary value problems of continuum mechanics. (Russian) **80c:76043**

Seymour, B. R. *See* **Mortell, M. P., 80h:76035**

Shubin, Gregory (*with* Cheng, Sin I) Gasdynamic modeling and computational accuracy. **80e:76039**

Sidorov, A. F. (*with* Hairullina, O. B.) Exact solutions of some boundary value problems of gas dynamics in classes of double and triple waves. (Russian) **80d:76071**

Šipilin, A. V. *See* **Osipov, I. L.; et al., 80b:76027**

Sirignano, W. A. Theory of flame spread above solids. **80d:76072**

One-dimensional analysis of combustion in a spark-ignition engine. **80d:76073**

Sod, Gary A. A numerical study of cylindrical implosion. **80d:76074**

Sukhin, S. V. A group property and conservation laws of an equation of transonic motion of a gas. (Russian) **80h:76037**

Syčev, V. V. *See* **Golubinskiĭ, A. I., 80g:76036**

Taranenko, S. N. *See* **Pavlov, K. B.; et al., 80d:76070**

Tarnavskiĭ, G. A. *See* **Kovenja, V. M., 80c:76041**

Tešukov, V. M. *See* **Ljapidevskiĭ, V. Ju.; et al., 80k:76063**

Titov, S. S. Convergence of the logarithmic series for an axially symmetric double wave in the neighborhood of a quiescent region. (Russian) **80h:76029**

Volčinskaja, M. I. (*with* Gol'din, V. Ja.; Gol'dina, D. A.; Kalitkin, N. N.; Kuzjuk, V. A.) Gas dynamics scheme of density integration. (Russian. English summary) **80k:76064**

Vorožcov, E. V. *See* **Janenko, N. N.; et al., 80j:76044**

Will, Dieter *See* **Gmadiew, Asgat, 80h:76034**

Woods, L. C. Transport processes in dilute gases over the whole range of Knudsen numbers. I. General theory. **80m:76063**

Zubov, E. N. Three-dimensional steady-state iso-entropic flows of an ideal gas with straight level lines. (Russian) **80c:76044**

Secondary classifications:

Alkimov, A. P. (*with* Vorožcov, E. V.; Papyrin, A. N.; Fomin, V. M.) Theoretical and experimental investigation of the motion of a gas mixture with hard particles in a Laval nozzle. (Russian) **(80e:76052)**

Ardeljan, N. V. Stability of difference schemes of gas dynamics with account taken of gravitation. (Russian) **(80e:65115)**

Belocerkovskiĭ, O. M. New numerical models in continuum mechanics. (Russian) **(80d:73021)**

Daniels, P. G. Laminar boundary-layer reattachment in supersonic flow. **(80e:76030)**

Davis, R. T. *See* **Srivastava, B. N.; et al., (80e:65092)**

Davydov, Ju. M. Investigation of the stability of difference schemes on the boundaries of a calculated region by the method of differential approximations. (Russian) **(80f:65107)**

Eremenko, V. A. On the structure of the velocity field in the vicinity of a caustic. **(80d:76076)**

Fomin, V. M. *See* **Alkimov, A. P.; et al., (80e:76052)**

Friedman, Avner The flow of gas in a porous medium. **(80e:76048)**

Lar'kin, N. A. A model system of equations of the mechanics of heterogeneous media. (Russian) **(80m:76076)**

Liu, Tai Ping The free piston problem for gas dynamics. **(80d:35091)**

Liu, V. C. *See* **Ying, S. J., (80d:76063)**

Lynn, Paul P. *See* **Polk, John F., (80i:65122)**

Mamontov, E. V. An equation of small perturbations in a non-steady-state transonic flow of gas. (Russian) **(80d:76049)**

Matkowsky, Bernard J. (*with* Sivašinskiĭ, G. I.) An asymptotic derivation of two models in flame theory associated with the constant density approximation. **(80g:80006)**

Matus, P. P. Accuracy of difference schemes for nonlinear equations of gas dynamics. (Russian. Lithuanian and English summaries) **(80c:65235)**

Mažorova, O. S. (*with* Popov, Ju. P.) Completeness of conservative schemes for two-dimensional equations of gas dynamics. (Russian) **(80f:65134)**

Papyrin, A. N. *See* **Alkimov, A. P.; et al., (80e:76052)**

Polk, John F. (*with* Lynn, Paul P.) A least squares finite element approach to unsteady gas dynamics. **(80i:65122)**

Popov, Ju. P. *See* **Mažorova, O. S., (80f:65134)**

Ram, R. D. A modification in the theorem of Bailey and Chen. (Italian summary) **(80b:80008)**

Robinson, Abraham ★Selected papers of Abraham Robinson. Vol. III. **(80k:01039c)**

Sivašinskiĭ, G. I. *See* **Matkowsky, Bernard J., (80g:80006)**

Srivastava, B. N. (*with* Werle, M. J.; Davis, R. T.) A finite difference technique involving discontinuous derivatives. **(80e:65092)**

Szablewski, Witold ★Turbulente Scherströmungen. Freie Turbulenz. **(80g:76025)**

Tešukov, V. M. Construction of the front of a shock wave in the three-dimensional piston problem. (Russian) **(80d:76056)**

Vorožcov, E. V. *See* **Alkimov, A. P.; et al., (80e:76052)**

Werle, M. J. *See* **Srivastava, B. N.; et al., (80e:65092)**

Ying, S. J. (*with* Liu, V. C.) An extension of MacCormack's method for flows with higher-order equations and in different configurations. **(80d:76063)**

(Young, A. D.) *See* **Robinson, Abraham, (80k:01039c)**

76N99 None of the above, but in this section

Beirão-da-Veiga, Hugo Un théorème d'existence dans la dynamique des fluides compressibles. (English summary) **80k:76065**

Guiraud, Jean-Pierre (*with* Zeytounian, Radyadour Kh.) Séparation d'une nappe tourbillonnaire sur une surface régulière à grand nombre de Reynolds. (English summary) **80i:76037**

Keller, Jakob J. Non-linear self-excited acoustic oscillations. (German summary) **80c:76045**

Kogan, M. N. (*with* Makaŝev, N. K.) Derivation of the equations of gas dynamics for multi-atomic gases with arbitrary relation between the speeds of elastic and inelastic processes. (Russian) **80a:76044**

Kretzschmar, Horst Instationäre Strömung in Rohren veränderlichen Querschnitts. **80c:76040**

Makaŝev, N. K. *See* **Kogan, M. N., 80a:76044**

Monkewitz, Peter A. The linearized treatment of general forced gas oscillations in tubes. **80g:76038**

Porodnov, B. T. (*with* Tuhvetov, F. T.) The calculation of the profile of the rate and flow in the case of nonisometric flow of a rarefied gas in a cylindrical capillary by the Krylov-Bogoljubov method. (Russian) **80f:76031**

Siekmann, J. Über die Profilkurve einer zylindrischen Kapillarfläche. **80h:76038**

Tuhvetov, F. T. *See* **Porodnov, B. T., 80f:76031**

Zeytounian, Radyadour Kh. *See* **Guiraud, Jean-Pierre, 80i:76037**

Secondary classifications:

Giambò, Sebastiano (*with* Greco, Antonio; Pantano, Pietro) Sur la méthode perturbative et réductive à *n*-dimensions: le fluide classique. (English summary) **(80c:35064)**
Greco, Antonio *See* **Giambò, Sebastiano; et al., (80c:35064)**
Mohan, C. (*with* Singh, K. R.) Nonradial oscillations of models of the generalized Roche series. **(80j:85006)**
Pantano, Pietro *See* **Giambò, Sebastiano; et al., (80c:35064)**
Singh, K. R. *See* **Mohan, C., (80j:85006)**

76P05 Rarefied gas flows, Boltzmann equation [See also 82A05.]

(Barsucev, R. G.) *See* **Aerodynamics of rarefied gases, 80m:76064a**
Belocerkovskiĭ, O. M. (*with* Janickiĭ, V. E.) Numerical simulation of rarefied gas flows. (Russian. English summary) **80g:76039**
Caflisch, Russel E. Navier-Stokes and Boltzmann shock profiles for a model of gas dynamics. **80g:76040**
Cole, R. J. Complementary variational principles for free molecular channel flow. **80k:76066**
Fiszdon, W. (*with* Herczyński, R.) The physics of transition flows. **80g:76041**
Herczyński, R. *See* **Fiszdon, W., 80g:76041**
Ilner, Reinhard On the derivation of the time-dependent equations of motion for an ideal gas with discrete velocity distribution. (French summary) **80g:76042**
Janickiĭ, V. E. *See* **Belocerkovskiĭ, O. M., 80g:76039**
Loyalka, S. K. (*with* Petrellis, N.; Storvick, T. S.) Some exact numerical results for the BGK model: Couette, Poiseuille and thermal creep flow between parallel plates. (German summary) **80j:76047**
Maslova, N. B. Stationary problems for the Boltzmann equation for large Knudsen numbers. (Russian) **80m:76064b**
Muncaster, Robert G. On generating exact solutions of the Maxwell-Boltzmann equation. **80b:76039**
Nishida, Takaaki The initial value problem of the Boltzmann equation and its fluid dynamical limit at the level of compressible Euler equation. **80c:76046**
Petrellis, N. *See* **Loyalka, S. K.; et al., 80j:76047**
Ryžov, O. S. Numerical methods in the dynamics of rarefied gases which have been developed and used at the Computing Center of the Academy of Sciences of the USSR. (Russian) **80b:76030**
Storvick, T. S. *See* **Loyalka, S. K.; et al., 80j:76047**
Aerodynamics of rarefied gases ★Аэродинамика разреженных газов. Вып. 9. (Russian) [Aerodynamics of rarefied gases. No. 9] **80m:76064a**

Secondary classifications:

Greenberg, William (*with* Voigt, Jürgen; Zweifel, P. F.) Discretized Boltzmann equation: lattice limit and non-Maxwellian gases. **(80m:82033)**
Voigt, Jürgen *See* **Greenberg, William; et al., (80m:82033)**
Zweifel, P. F. *See* **Greenberg, William; et al., (80m:82033)**

76Q05 Hydrodynamic sound, acoustics

Bettess, P. *See* **Zienkiewicz, O. C.; et al., 80b:76042**
Bolko, R. V. (*with* Demenin, O. M.) Branching processes with a variable state in probabilistic models of reverberation noises. (Russian) **80d:76075**
Candel, Sébastien M. Numerical solution of wave scattering problems in the parabolic approximation. **80m:76065**
Chwalczyk, F. (*with* Rafa, J.; Włodarczyk, Edward) Propagation of three component nonstationary acoustic waves in layer of ideal liquid. I. Basic solution. (Polish and Russian summaries) **80f:76032**
Colton, David The scattering of acoustic waves by a spherically stratified medium and an obstacle. **80a:76045**
Crighton, D. G. (*with* Scott, J. F.) Asymptotic solutions of model equations in nonlinear acoustics. **80b:76040**
Deavenport, R. L. *See* **DiNapoli, F. R., 80k:76067**
Demenin, A. N. Probability measures that correspond to the solution of stochastic problems of mechanics and hydro-accoustics. (Russian) **80b:76031**
Demenin, O. M. *See* **Bolko, R. V., 80d:76075**
DiNapoli, F. R. (*with* Deavenport, R. L.) Theoretical and numerical Green's function field solution in a plane multilayered medium. **80k:76067**
Engelbrecht, J. *See* **Nigul, U. K., 80f:76039**
Engquist, Björn (*with* Majda, Andrew) Radiation boundary conditions for acoustic and elastic wave calculations. **80e:76041**
Eremenko, V. A. On the structure of the velocity field in the vicinity of a caustic. **80d:76076**
Filippi, Paul Problème de transmission pour l'équation de Helmholtz scalaire et problèmes aux limites équivalents: application à la transmission gaz parfait-milieu poreux. (English summary) **80m:76066**
Greenspan, Martin Piston radiator: some extensions of the theory. **80b:76032**
Grimm, Denny W. (*with* Hurst, C. J.) A geometric acoustics approach to the study of sound propagation in ducts containing sheared flows. **80m:76067**
Hummelgens, P. F. Axial symmetric scattering of sound by a torus. **80m:76068**
Hurst, C. J. *See* **Grimm, Denny W., 80m:76067**
Jakovlev, V. V. *See* **Selezov, I. T., 80e:76042**
Jones, D. S. Acoustic tunnelling. **80f:76033**
Acoustic radiation of long wavelength. **80i:76038**
Keller, Jakob J. Resonant oscillations in open tubes with a mean flow. (German summary) **80d:76077**
Production and propagation of sound in a duct. **80j:76048**
Kelly, D. W. *See* **Zienkiewicz, O. C.; et al., 80b:76042**
Klešćev, A. G. (*with* Lisin, A. M.) The solution of a distance problem of acoustics. (Russian) **80k:76068**
Krasil'ščikova, E. A. Potential field induced by an acoustical wave incident upon a moving plane. **80b:76033**
Leitman, M. J. On plane waves propagating into a random fluid: asymptotic behavior. **80m:76069**
Lin, Shih Fu A Galerkin isoparametric finite element analysis of acoustic field in lined ducts. (Chinese summary) **80f:76034**
Lisin, A. M. *See* **Klešćev, A. G., 80k:76068**
Lobanov, E. V. (*with* Rybak, S. A.) Nonconservative boundary-value problems of wave theory. **80b:76034**
Majda, Andrew *See* **Engquist, Björn, 80e:76041**
McCoy, John J. On an extended parabolic-coherence function propagation model. **80d:76078**
Murphy, Joseph E. Spectral domain formulation for acoustic scattering. **80h:76041**
Nigul, U. K. (*with* Engelbrecht, J.) On dissipative, diffractional and nonlinear effects in acoustodiagnostics of layered media. **80i:76039**
Nixdorff, K. An application to the differential equations of the sound ray. **80d:76079**
Obermeier, F. On a new representation of aeroacoustic source distribution. I. General theory. (German and French summaries) **80f:76035a**
On a new representation of aeroacoustic source distribution. II. Two-dimensional model flows. (German and French summaries) **80f:76035b**
Pao, Yih Hsing The transition matrix for the scattering of acoustic waves and for elastic waves. **80f:76036**
Pierce, A. D. Acoustical energy conservation-dissipation theorem. **80f:76037**
Poljanskiĭ, È. A. On estimates of the solution of the Helmholtz equation in a plane waveguide. (Russian) **80b:76035**
Rafa, J. *See* **Chwalczyk, F.; et al., 80f:76032**
Riddell, Robert J., Jr. Boundary-distribution solution of the Helmholtz equation for a region with corners. **80d:76080**
Rybak, S. A. *See* **Lobanov, E. V., 80b:76034**
Saleh, Ahmed Safvat Abd el'-Radi Diffraction of waves by a discontinuity line in the curvature of a boundary surface. (Russian. English summary) **80b:76036**
Saltiel, Léon Propagation acoustique dans un chenal sous-marin profond. (English summary) **80d:76081**
Schumacher, R. T. Self-sustained oscillations of the clarinet: an integral equation approach. (German and French summaries) **80i:76040**
Scott, J. F. *See* **Crighton, D. G., 80b:76040**
Selezov, I. T. (*with* Jakovlev, V. V.) ★Дифракция волн на симметричных неоднородностях. (Russian) [Wave diffraction by symmetric nonhomogeneities] **80e:76042**
Trad, A. Ondes thermo-acoustiques dans un tube poreux. Le cas limite du tube de Rijke. (English summary) **80k:76069**
Wilcox, Calvin H. Sonar echo analysis. **80d:76082**
Włodarczyk, Edward *See* **Chwalczyk, F.; et al., 80f:76032**
Zienkiewicz, O. C. (*with* Kelly, D. W.; Bettess, P.) The Sommerfeld (radiation) condition of infinite domains and its modelling in numerical procedures. **80b:76042**

Secondary classifications:

Ardeljan, N. V. Stability of difference schemes for multidimensional equations of acoustics. (Russian) **(80f:65096)**
Boström, Anders Scattering of stationary acoustic waves by an elastic obstacle immersed in a fluid. **(80m:73018)**
Das, G. C. Travelling wave solutions for inhomogeneous acoustic gravity waves. **(80m:76017)**
Gimadiev, Asgat (*with* Will, Dieter) Untersuchungen zur instationären Gas- und Flüssigkeitsströmung durch Drosselelemente. **(80h:76034)**
Gottlieb, Hans P. W. Harmonic properties of the annular membrane. **(80f:73035)**
Ichikawa, Yoshi Hiko *See* **Konno, Kimiaki; et al., (80g:76054)**
Keller, Jakob J. Non-linear self-excited acoustic oscillations. (German summary) **(80c:76045)**
Konno, Kimiaki (*with* Mitsuhashi, Teruo; Ichikawa, Yoshi Hiko) Propagation of ion acoustic cnoidal wave. **(80g:76054)**
Mitsuhashi, Teruo *See* **Konno, Kimiaki; et al., (80g:76054)**
Morro, Angelo Interaction of acoustic waves with shock waves in elastic solids. (French summary) **(80g:73029)**
Popov, M. M. Correctness of the problem of whispering gallery waves in the vicinity of points where the boundary becomes straight. (Russian. English summary) **(80k:35025)**
Repin, V. B. Heat exchange of a cylinder in a complex sonic field. (Russian) **(80k:80007)**
Saltanov, M. V. The variational principle for multicomponent magnetic hydrodynamics based on a generalization of the Clebsch transformation. (Russian) **(80g:76053)**
Sibgatoulline, Nail Les effets acoustiques non linéaires dans l'univers en expansion. (English summary) **(80m:85007)**
Sibul, Leon H. Stochastic Green's functions and scattering functions. **(80h:78005)**
Viktorov, I. A. Types of acoustic surface waves in solids (review). **(80j:73015)**
Will, Dieter *See* **Gimadiev, Asgat, (80h:76034)**
Wolfe, Peter Diffraction of a plane wave by a circular disk. **(80f:35039)**
Acoustic propagation *See* **Journées: Études sur la Propagation Acoustique, (80e:76001)**
Journées:
Études sur la Propagation Acoustique ★Journées d'Études sur la Propagation Acoustique. **(80e:76001)**
Marseille *See* **Journées: Études sur la Propagation Acoustique, (80e:76001)**

76Rxx Diffusion and convection [See also 60J60.]

76R05 Forced convection

Brown, S. N. (*with* Stewartson, Keith) On finite amplitude Bénard convection in a cylindrical container. II. **80c:76047**

Rama Rao, K. V. Numerical solution of the thermal instability of a micropolar fluid layer between rigid boundaries. (German summary) **80d:76083**
Stewartson, Keith *See* **Brown, S. N., 80c:76047**

Secondary classifications:

Lerche, I. Kinematic diffusion of scalar quantities in turbulent velocity fields. **(80m:76050)**
Singh, Punyatma (*with* Verma, R. L.) Free convection fluctuating flow on a horizontal magnetized plate. **(80m:76081)**
Soppa, M. S. The existence of a multicomponent thermal boundary layer in the case of a general matrix of diffusion. (Russian) **(80i:80007)**
Verma, R. L. *See* **Singh, Punyatma, (80m:76081)**

76R10 Free convection

Caltagirone, J. P. *See* **Mojtabi, A., 80d:76084**
Chiou, J. P. *See* **Na, T. Y., 80m:76070**
Mojtabi, A. (*with* Caltagirone, J. P.) Étude de la stabilité d'un écoulement de convection naturelle dans un espace annulaire horizontal. (English summary) **80d:76084**
Na, T. Y. (*with* Chiou, J. P.) Laminar natural convection over a frustum of a cone. **80m:76070**
Reiss, Edward L. (*with* Tavantzis, John) A boundary value problem of thermal convection. **80k:76070**
Smith, Ronald Asymptotic solutions of the Erdogan-Chatwin equation. **80d:76085**
Tavantzis, John *See* **Reiss, Edward L., 80k:76070**

Secondary classifications:

Gartling, D. K. *See* **Nickell, R. E.; et al., (80g:65115)**
Georgantopoulos, G. A. (*with* Nanousis, N. D.) Effects of mass transfer of the hydromagnetic free convective flow in the Stokes' problem. **(80m:85003)**
Ingham, D. B. Flow past a suddenly cooled vertical plate. **(80i:65141)**
Nanousis, N. D. *See* **Georgantopoulos, G. A., (80m:85003)**
Nickell, R. E. (*with* Gartling, D. K.; Strang, Gilbert) Spectral decomposition in advection-diffusion analysis by finite element methods. **(80g:65115)**
Strang, Gilbert *See* **Nickell, R. E.; et al., (80g:65115)**

76R99 None of the above, but in this section

Artola, Michel (*with* Duvaut, Georges) Homogénéisation d'une classe de problèmes non linéaires. (English summary) **80b:76037**
Bondarčuk, V. T. Diffusion in a system consisting of a backing and a thin film. (Russian) **80g:76043**
Duvaut, Georges *See* **Artola, Michel, 80b:76037**
Martin, Brian (*with* Stokes, Nick) Comparing methods for modelling dispersion in flowing media. **80h:76043**
Miloi, Luciano A free surface problem in a natural convection. (Italian. English summary) **80e:76043**
Misra, U. N. *See* **Singh, Punyatma; et al., 80a:76046**
Sharma, V. P. *See* **Singh, Punyatma; et al., 80a:76046**
Singh, Punyatma (*with* Sharma, V. P.; Misra, U. N.) Three dimensional free convection flow and heat transfer along a porous vertical plate. **80a:76046**
Stokes, Nick *See* **Martin, Brian, 80h:76043**

76S05 Flows in porous media; filtration; seepage

Agarwal, J. P. (*with* Roy, S. K.) Effect of suction and injection on flow along a vertical plane surface. **80m:76071**
Alt, Hans Wilhelm Strömungen durch inhomogene poröse Medien mit freiem Rand. **80d:76086**
Antoncev, S. N. Steady-state problems of two-phase filtration with unknown boundaries. (Russian) **80d:76087**
(*with* Meĭrmanov, A. M.) Questions of correctness of a model of the simultaneous motion of surface and ground waters. (Russian) **80e:76044**
(*with* Monahov, V. N.) Three-dimensional problems of transient two-phase filtration in inhomogeneous anisotropic porous media. (Russian) **80f:76038**
(*with* Papin, A. A.) Approximate methods of solving two-phase filtration problems. (Russian) **80k:76071**
Baiocchi, C. Recent results on free boundary problems in fluid flow through porous media. **80c:76045**
Bedford, Anthony (*with* Drumheller, Douglas S.) A variational theory of porous media. **80m:76072**
Begmatov, A. The problem of leaching without drainage in the presence of a nonlinear diffusion law. (Russian. Uzbek summary) **80c:76048**
Berezovs'kiĭ, A. A. (*with* Bondarčuk, V. T.) Self-similar solutions of problems of intensive diffusion in a plane-laminated medium. (Russian) **80e:76046**
Beyer, W. A. *See* **Mantini, Lisa A., 80d:76092**
Bondarčuk, V. T. *See* **Berezovs'kiĭ, A. A., 80e:76046**
Caffarelli, Luis A. (*with* Friedman, Avner) Regularity of the free boundary for the one-dimensional flow of gas in a porous medium. **80k:76072**
Comincioli, V. The numerical solution of a free boundary transient seepage flow problem using variational inequalities. **80e:76047**
Coţiu, Aurel (*with* Moruşca, Ioan; Potra, Teodor) Mathematical modeling by complex spline functions of filtration phenomena in porous media. (Romanian) **80c:76049**
Čugunov, V. D. (*with* Haĭrullin, M. H.) Determination of the pressure field in a nonuniform layer by the statistical test method. (Russian) **80g:76044**
Desperat, Tadeusz Boundary value problems with a free boundary in the theory of stationary filtration. (Polish) **80d:76088**
Drumheller, Douglas S. *See* **Bedford, Anthony, 80m:76072**
van Duyn, C. J. On the diffusion of immiscible fluids in porous media. **80g:76045**
Èĭkin, L. D. Special functions of the theory of rotational diffusion. (Russian) **80d:76089**
Fasano, A. (*with* Primicerio, M.) Liquid flow in partially saturated porous media. **80g:76046**
Finn, Robert Some comparison properties and bounds for capillary surfaces. (Russian summary) **80b:76038**
Fleury, Françoise Sédimentation de particules solides dans un fluide visqueux incompressible. (English summary) **80d:76090**
Friedman, Avner The flow of gas in a porous medium. **80e:76048**
See also **Caffarelli, Luis A., 80k:76072**
Gabitov, I. R. *See* **Imanaliev, M. I.; et al., 80f:76039**
Gheorghiţă, Şt. I. Sur une classe de mouvement avec symétrie axiale en milieux poreux. **80c:76049**
Gilardi, Gianni A new approach to evolution free boundary problems. **80f:76041**
Gilding, B. H. Stabilization of flows through porous media. **80c:76050**
Goldstein, M. E. (*with* Reid, R. L.) Effect of fluid flow on freezing and thawing of saturated porous media. **80c:76051**
Gol'dštik, M. A. *See* **Vaĭsman, A. M., 80d:76096**
Golosov, Ju. I. (*with* Punienė, J.) Choice of discretization step in numerical modeling of a continuous-time filtration scheme. (Russian. Lithuanian summary) **80c:76052**
Goncerzewicz, J. (*with* Marcinkowska, H.; Okrasiński, W.; Tabisz, K.) On the percolation of water from a cylindrical reservoir into the surrounding soil. (Polish summary) **80c:76053**
Gorskiĭ, N. M. (*with* Selivanov, I. A.) Quasilinear hyperbolic equations that are described by problems of filtration theory. (Russian) **80c:76054**
Guseinov, P. M. (*with* Janickiĭ, P. A.) The end effect in two-phase filtration under conditions of small initial flooding. (Russian) **80g:76047**
Hairullin, M. H. *See* **Čugunov, V. D., 80g:76044**
Holodovskiĭ, S. E. Generalization of the circumference theorem to the case of four zones with different conductivity. (Russian) **80d:76091**
Imanaliev, M. I. (*with* Pankov, P. S.; Gabitov, I. R.) Computer application for the proof of the correctness of an inverse problem. (Russian) **80f:76039**
Janickiĭ, P. A. *See* **Guseinov, P. M., 80g:76047**
Jurik, Ĭ. Ĭ. *See* **Rudčenko, P. A.; et al., 80d:76094**
Kant, Ravi Unsteady flow between two porous plates with Hall effects. **80f:76040**
Lavrik, V. I. (*with* Miljutin, O. F.) Analytic and numerical-analytic solution of two-dimensional boundary value problems of convective diffusion of soluble matter in the filtration of underground waters. (Russian) **80e:76050**
Approximate solution of boundary value problems of convective diffusion of soluble substances in a filtration flow. (Russian) **80f:76041**
Lučko, Ĭ. A. *See* **Rudčenko, P. A.; et al., 80d:76094**
Mamažanov, Ž. M. *See* **Tolipov, V., 80d:76095**
Mantini, Lisa A. (*with* Beyer, W. A.) Optimization of natural gas production by waterflooding. **80d:76092**
Marcinkowska, H. *See* **Goncerzewicz, J.; et al., 80c:76053**
McKibbin, R. (*with* O'Sullivan, M. J.) Onset of convection in a layered porous medium heated from below. **80m:76073**
Meirmanov, A. M. *See* **Antoncev, S. N., 80e:76044**
Miljutin, O. F. *See* **Lavrik, V. I., 80e:76050**
Monahov, V. N. *See* **Antoncev, S. N., 80f:76038**
Moruşca, Ioan *See* **Coţiu, Aurel; et al., 80c:76049**
Mukhidinov, N. M. ★Газогидродинамическое исследование нелинейной фильтрации жидкости и газа. (Russian) [Gas and hydrodynamical study of the nonlinear filtration of fluid and gas] **80e:76051**
Nakano, Yoshisuke The mathematical descriptions of a moving boundary problem in an elliptic-parabolic system of partial differential equations in the hydrodynamics of porous media. **80d:76093**
Narasimhacharyulu, V. (*with* Ramacharyulu, N. Ch. Pattabhi) Steady flow in a porous region between two slowly rotating spheres. **80h:76044**
Okrasiński, W. *See* **Goncerzewicz, J.; et al., 80c:76053**
O'Sullivan, M. J. *See* **McKibbin, R., 80m:76073**
Padmanabhan, N. Exact solution for the unsteady motion of a viscous fluid in a porous annulus. **80f:76042**
Pankov, P. S. *See* **Imanaliev, M. I.; et al., 80f:76039**
Papin, A. A. *See* **Antoncev, S. N., 80k:76071**
Philip, J. R. Corrigendum: "Inverse power law potentials about polygonal prisms and in polygonal cavities" [J. Austral. Math. Soc. Ser. B **20** (1977/78), no. 2, 241–253; MR 58 #14244]. **80k:76073**
Potra, Teodor *See* **Coţiu, Aurel; et al., 80c:76049**
Primicerio, M. *See* **Fasano, A., 80g:76046**
Punienė, J. *See* **Golosov, Ju. I., 80c:76052**
Puri, K. K. Viscous damping of gravity waves over a permeable bed. **80a:76047**
Ramacharyulu, N. Ch. Pattabhi *See* **Narasimhacharyulu, V., 80h:76044**
Reid, R. L. *See* **Goldstein, M. E., 80c:76051**
Roy, S. K. *See* **Agarwal, J. P., 80m:76071**
Rudčenko, P. A. (*with* Lučko, Ĭ. A.; Jurik, Ĭ. Ĭ.) Computation of the filtration from channels that are formed by detonations. (Russian) **80d:76094**
Selivanov, I. A. *See* **Gorskiĭ, N. M., 80c:76054**
Shen, M. C. Asymptotic method for flow in unconfined aquifers. **80j:76049**
Tabisz, K. *See* **Goncerzewicz, J.; et al., 80c:76053**
Tamura, Takeshi A study on the mechanism of consolidation. **80m:76074**
Tihonov, N. A. Determining the characteristic of evaporation. (Russian) **80b:76039**
Tolipov, V. (*with* Mamažanov, Ž. M.) Numerical solution of a multipoint boundary value problem of the theory of filtration in a multilayer stratum under elastic water pressure. (Russian) **80d:76095**
Vaĭsman, A. M. (*with* Gol'dštik, M. A.) A dynamic model of the movement of a fluid in a porous medium. (Russian) **80d:76096**

Secondary classifications:

Antoncev, S. N. (*with* Papin, A. A.) Global smoothness of the solutions of equations of two-phase filtration. (Russian) **(80d:35133)**

Baiocchi, C. Problèmes à frontière libre en hydraulique: milieux non homogènes. (80b:35130)

Berdičevskiĭ, A. L. (*with* Berdičevskiĭ, V. L.) The flow of an ideal fluid around a periodic system of bodies. (Russian) (80c:76013)

Berdičevskiĭ, V. L. *See* **Berdičevskiĭ, A. L.,** (80c:76013)

Brézis, Haïm (*with* Kinderlehrer, David; Stampacchia, Guido) Sur une nouvelle formulation du problème de l'écoulement à travers une digue. (English summary) (80b:35131)

Caffarelli, Luis A. (*with* Friedman, Avner) Continuity of the density of a gas flow in a porous medium. (80f:35090)

Carbone, Luciano (*with* Valli, Alberto) Filtration through a porous nonhomogeneous medium with variable cross section. (80f:35152)

Crowley, A. B. On the weak solution of moving boundary problems. (80d:65129)

Evans, Lawrence C. (*with* Friedman, Avner) Regularity and asymptotic behavior of two immiscible fluids in a one-dimensional porous medium. (80g:35126)

Fairweather, Graeme On the approximate solution of a diffusion problem by Galerkin methods. (80k:65083)

Friedman, Avner (*with* Jensen, Robert) A nonsteady flow of liquid in a porous pipe with variable permeability. (80k:35045)

See also **Evans, Lawrence C., (80g:35126)** *and* **Caffarelli, Luis A., (80f:35090)**

Galligani, Elio Quasilinearization and the identification of parameters in partial differential equations of parabolic type. (80f:65127)

Jensen, Robert *See* **Friedman, Avner, (80k:35045)**

Kinderlehrer, David *See* **Brézis, Haïm; et al., (80b:35131)**

Kundzewicz, Zbigniew Mathematical models in hydrology. (Polish) (80f:86002)

Madaune, Monique Comportement des solutions d'une classe d'équations paraboliques non linéaires dégénérées du type de l'équation des milieux poreux. (English summary) (80c:35050)

McKee, S. The analysis of a variable step, variable coefficient linear multistep method for solving a singular integro-differential equation arising from the diffusion of discrete particles in a turbulent fluid. (80e:65249)

Mukhidinov, N. M. Some analytic solutions of linear and quasilinear filtration equations. (Russian) (80b:35088)

Nakaev, A. M. Boundary value problems for loaded integro-differential equations of hyperbolic type and some of their applications to the prediction of ground moisture. (Russian) (80f:45020)

Ngô Văn Lư'o'c Summary representation formulas for a class of equations with variable coefficients. (Russian. English summary) (80f:35026)

Papin, A. A. *See* **Antoncev, S. N., (80d:35133)**

Rasmussen, H. (*with* Rogers, C.) Solutions of free surface problems using a Rayleigh-Ritz procedure. (80k:65144)

Rogers, C. *See* **Rasmussen, H., (80k:65144)**

Stampacchia, Guido *See* **Brézis, Haïm; et al., (80b:35131)**

Valli, Alberto *See* **Carbone, Luciano, (80f:35152)**

Visintin, Augusto Study of a free boundary filtration problem by a nonlinear variational equation. (Italian summary) (80h:35121)

76T05 Two-phase and multiphase flows

Alhimov, A. P. (*with* Vorožcov, E. V.; Papyrin, A. N.; Fomin, V. M.) Theoretical and experimental investigation of the motion of a gas mixture with hard particles in a Laval nozzle. (Russian) 80e:76052

Aronsson, Gunnar (*with* Winzell, Bengt) On an elliptic boundary value problem with mixed boundary conditions, arising in suspended sediment transport theory. 80i:76042

Baruwal, S. P. *See* **Srivastava, O. S., 80c:76055**

Bedford, Anthony (*with* Drumheller, Douglas S.) A variational theory of immiscible mixtures. 80a:76048

Begmatov, A. A nonlinear problem on the two-dimensional transient motion of two fluids of different mineralization. (Russian) 80e:76053

Drumheller, Douglas S. *See* **Bedford, Anthony, 80a:76048**

Fleury, Françoise Propagation of waves in a suspension of solid particles. 80m:76075

Fomin, V. M. *See* **Alhimov, A. P.; et al., 80e:76052**

Indrasena, A. Unsteady flow of a dusty viscous liquid. 80a:76049

Kaimal, M. R. Peristaltic pumping of a Newtonian fluid with particles suspended in it at low Reynolds number under long wavelength approximations. 80a:76050

Knops, R. J. (*with* Straughan, B.) Mean velocity and the volume flow rate for steady one-dimensional flow of a mixture of two incompressible Newtonian fluids. 80i:76043

Kuznecov, B. G. Quelques problèmes en dynamique des solutions. 80e:76054

Lar'kin, N. A. A model system of equations of the mechanics of heterogeneous media. (Russian) 80m:76076

Nigmatulin, R. I. ★Основы механики гетерогенных сред. (Russian) [Foundations of the mechanics of heterogeneous media] 80b:76040

O'Kane, J. P. J. An estuarine water-quality model in an oscillating constant-volume reference frame. 80b:76041

Papyrin, A. N. *See* **Alhimov, A. P.; et al., 80e:76052**

Srivastava, O. S. (*with* Barnwal, S. P.) Three-dimensional shock waves in a gaseous medium containing dust particles. 80c:76055

Straughan, B. *See* **Knops, R. J., 80i:76043**

Ubertini, Lucio Mathematical model for the study of the pollution in a stream. (Italian) 80f:76043

Vorožcov, E. V. *See* **Alhimov, A. P.; et al., 80e:76052**

Winzell, Bengt *See* **Aronsson, Gunnar, 80i:76042**

76U05 Rotating fluids

Andrews, D. G. (*with* McIntyre, M. E.) An exact theory of nonlinear waves on a Lagrangian-mean flow. 80e:76055

Bao, Ming Tang Error estimates for natural cubic splines in design calculations for two-stage flow around the blades of a rotary compressor. (Chinese) 80k:76045

Barkovskiĭ, Ju. S. (*with* Judovič, V. I.) Taylor vortex generation in the case of counter-rotating cylinders and the spectral properties of a class of boundary value problems. (Russian) 80k:76074

Berker, R. A new solution of the Navier-Stokes equation for the motion of a fluid contained between two parallel plates rotating about the same axis. (Polish and Russian summaries) 80j:76050

Ekrat, Alan R. On the flow between a rotating disk and a porous disk. 80k:76075

Judovič, V. I. *See* **Barkovskiĭ, Ju. S., 80k:76074**

McIntyre, M. E. *See* **Andrews, D. G., 80e:76055**

Morro, Angelo Thermoviscoelasticity and invariance of the entropy production under time-reversal. (Italian summary) 80k:73076

Roesner, K. G. Numerical calculation of hydrodynamic stability problems with time-dependent boundary conditions. 80h:76046

Secondary classifications:

Elkin, N. N. The existence and uniqueness of the solution of boundary value problems in the theory of long waves on surfaces of a rotating fluid. (Russian) (80j:35022)

76V05 Multiphase and stratified fluids

Al-Zanaidi, M. A. *See* **Dore, B. D., 80i:76044**

Antoncev, S. N. (*with* Kažihov, A. V.; Monahov, V. N.) Solvability of boundary value problems for some models of inhomogeneous fluids. (Russian) 80g:76049

Chen, H. H. (*with* Lee, Y. C.; Pereira, N. R.) Algebraic internal wave solitons and the integrable Calogero-Moser-Sutherland N-body problem. 80b:76042

Cheng, H. K. *See* **Stewartson, Keith, 80g:76048**

Dore, B. D. (*with* Al-Zanaidi, M. A.) On secondary vorticity in internal waves. 80i:76044

Golovačev, Ju. G. (*with* Marennikova, O. N.; Tarnavskiĭ, A. A.) Stability of stratified flows. II. Viscid two-layer flow. (Russian) 80c:76056

Kažihov, A. V. (*with* Petrov, A. N.) Well-posedness of the initial-boundary value problem for a model system of equations of a multicomponent mixture. (Russian) 80c:76056

See also **Antoncev, S. N.; et al., 80g:76049**

Kuznecov, B. G. Some problems of the dynamics of solutions. (Russian) 80g:76050

Lee, Y. C. *See* **Chen, H. H.; et al., 80b:76042**

Marennikova, O. N. *See* **Golovačev, Ju. G.; et al., 80c:76056**

Monahov, V. N. *See* **Antoncev, S. N.; et al., 80g:76049**

Pereira, N. R. *See* **Chen, H. H.; et al., 80b:76042**

Petrov, A. N. *See* **Kažihov, A. V., 80c:76056**

Remke, Klaus ★Gegenwärtige Entwicklungstendenzen in der Mechanik der Mehrphasenströmungen. 80m:76077

Simon, Jacques Écoulement d'un fluide non homogène avec une densité initiale s'annulant. (English summary) 80c:76057

Stewartson, Keith (*with* Cheng, H. K.) On the structure of inertial waves produced by an obstacle in a deep, rotating container. 80g:76048

Sturova, I. V. Internal waves generated by local perturbations in a stratified fluid. (Russian) 80c:76057

Tarnavskiĭ, A. A. *See* **Golovačev, Ju. G.; et al., 80c:76056**

Vreugdenhil, C. B. Two-layer shallow-water flow in two dimensions, a numerical study. 80k:76076

76W05 Magnetohydrodynamics and electrohydrodynamics

Alemany, A. (*with* Moreau, R.) Écoulement MHD en présence d'un champ magnétique transversal à plusieurs paires de poles. (English summary) 80d:76097

Ansari, M. A. *See* **Babu, Ram, 80e:76059**

Babiščevič, P. N. (*with* Degtjarëv, L. M.; Pošehonov, Ju. Ju.) Numerical solution of a direct and inverse problem of MHD-equilibrium with a surface current. (Russian) 80c:76058

Babu, Ram (*with* Ansari, M. A.) Steady transverse magnetohydrodynamic nonviscous flows. (Italian and Russian summaries) 80e:76059

See also **Gangwar, S. S., 80m:76078**

Balli, Raffaele (*with* Pucci, Edvige) Exact solutions of the Strakhovitch type in magneto-fluid dynamics. (Italian. French summary) 80f:76045

Barron, Ronald M. *See* **Chandna, O. P.; et al., 80d:76098**

Beasley, C. O. *See* **Lominadze, J. G.; et al., 80f:76046**

Brar, G. S. Similarity solutions by group transforms for unsteady hydromagnetic free convection flow. (French and Serbo-Croatian summaries) 80a:76051

Büttiker, M. (*with* Thomas, H.) Hydrodynamic modes, soft modes and fluctuation spectra near the threshold of a current instability. 80c:76058

Chandna, O. P. (*with* Barron, Ronald M.; Garg, M. R.) Plane compressible MHD flows. 80d:76098

Chawla, S. S. Double boundary layers on an electrically conducting plane surface in a rotating environment. 80d:76099

Cobble, M. H. Free convection with mass transfer under the influence of a magnetic field. 80b:76043

Cypkin, G. G. *See* **Kidin, N. I., 80m:76079**

Dawson, J. M. *See* **Leboeuf, J. N.; et al., 80b:76044**

Degtjarëv, L. M. *See* **Babiščevič, P. N.; et al., 80c:76058**

Demiray, Hilmi A continuum theory of solid state plasma. (Polish and Russian summaries) 80c:76059

Favorskiĭ, A. P. *See* **Golovizmin, V. M.; et al., 80e:76060** *and* **Golovizmin, V. M.; et al., 80i:76046**

Gangwar, S. S. (*with* Babu, Ram) On the geometrization of the steady and nondissipative magnetofluid flows. (Italian and Russian summaries) 80m:76078

Garg, M. R. *See* **Chandna, O. P.; et al., 80d:76098**

Gaur, M. *See* **Rai, A.; et al., 80d:76104**

Geffen, Nina *See* **Lustman, Levi, 80j:76051**

Georgiev, Georgi Iv. (*with* Ignat, Margareta) A. Masotti motions. (Italian. English summary) **80d:76100**

Giambò, Sebastiano (*with* Greco, Antonio) On the generalized relativistic magnetohydrodynamics for a heat conducting fluid. **80f:76044**

Gogosov, V. V. (*with* Korovin, V. M.; Poljanskiĭ, V. A.) Investigation of the structure of electrohydrodynamic shock waves using the complete equation of motion for the charged component instead of Ohm's law. **80d:76101**

Golovizmin, V. M. (*with* Koršija, T. K.; Samarskiĭ, A. A.; Favorskiĭ, A. P.) Two-dimensional variational difference schemes of magnetic fluid dynamics with three components of the velocity and of the magnetic field. (Russian. English summary) **80e:76060**

(*with* Samarskiĭ, A. A.; Favorskiĭ, A. P.) The use of the least action principle for the construction of discrete mathematical models in magnetohydrodynamics. (Russian) **80i:76046**

Gordeev, A. V. (*with* Gulin, A. V.; Savenkova, N. P.) Instability of an electron flow in magnetic self-confinement. (Russian. English summary) **80k:76077**

Govinda Thirtha, D. *See* **Mittal, M. L., 80h:76048**

Greco, Antonio *See* **Giambò, Sebastiano, 80f:76044**

Gulin, A. V. *See* **Gordeev, A. V.; et al., 80k:76077**

Hölder, Ernst Zum Druckberg in der Magneto-Gasdynamik. (English and Russian summaries) **80k:76078**

Hu, Pung Nien Nonlinear stability problems in dissipative plasmas on two time scales. **80k:76079**

Iviev, I. I. Equilibrium of the boundary dividing liquid dielectrics which are positioned between two vertical, coaxial charged cylinders. (Russian) **80k:76047**

Ignat, Margareta *See* **Georgiev, Georgi Iv., 80d:76100**

Indrasena, A. Steady rotating hydromagnetic flows. **80e:76061**

Kidin, N. I. (*with* Cypkin, G. G.) Nonlinear and linear wave processes in electrohydrodynamics with account taken of the diffusion of charges. (Russian) **80m:76079**

Killeen, John Numerical methods in fusion research. **80f:76045**

Korovin, V. M. *See* **Gogosov, V. V.; et al., 80d:76101**

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Leboeuf, J. N. (*with* Tajima, T.; Dawson, J. M.) A magnetohydrodynamic particle code for fluid simulation of plasmas. **80b:76044**

Lever, D. A. Large distortion of the electric double layer around a charged particle by a shear flow. **80g:76051**

Lominadze, J. G. (*with* Mihaĭlovskiĭ, A. B.; Beasley, C. O.) Beam shear-Alfvén instability in two-component tokamak. **80f:76046**

Loper, David E. *See* **Roberts, P. H., 80g:76052**

Lustman, Levi (*with* Geffen, Nima) Wave propagation and breaking in multidimensional magnetogasdynamic flows. (French summary) **80j:76051**

Maugin, Gérard A. A phenomenological theory of ferroliquids. **80a:76052**

Mihaĭlovskiĭ, A. B. *See* **Lominadze, J. G.; et al., 80f:76046**

Mittal, M. L. (*with* Govinda Thirtha, D.) Nonlinear hydromagnetic waves in two-electron temperature plasma. **80h:76048**

Morcau, R. *See* **Alemany, A., 80d:76097**

Okulov, N. A. Optimal characteristic of the work of a conduction-type channel. **80e:76062**

Pao, Young-ping Nonlinear behavior of linearly unstable magnetohydrodynamic modes. **80c:76069**

Poljanskiĭ, V. A. *See* **Gogosov, V. V.; et al., 80d:76101**

Polehonov, Ju. Ju. *See* **Babiščevič, P. N.; et al., 80e:76058**

Prasad, Baleshwar On radiative magnetogasdynamic boundary shock wave. **80j:76052**

Procopiuc, Gh. The equations of radiation field. Invariance groups. **80d:76102**

The equations of radiative relativistic magnetohydrodynamics. Invariance groups for one-dimensional flow. **80m:76080**

Pucci, Edvige *See* **Balli, Raffaele, 80i:76045**

Rai, A. (*with* Gaur, M.; Ram, R. D.) Propagation of weak MHD discontinuities in an optically thin medium. **80d:76104**

Ram, R. D. *See* **Rai, A.; et al., 80d:76104**

Renno, Pasquale *See* **de Socio, Luciano, 80d:76103**

Roberts, P. H. (*with* Loper, David E.) On the diffusive instability of some simple steady magnetohydrodynamic flows. **80g:76052**

Rumsey, V. H. Space-time analysis of wave propagation through a turbulent medium. **80e:76063**

Russel, William B. The low-shear limit of the effective viscosity of a solution of charged macromolecules. **80h:76049**

Saltanov, M. V. The variational principle for multicomponent magnetic hydrodynamics based on a generalization of the Clebsch transformation. (Russian) **80g:76053**

Samarskiĭ, A. A. *See* **Golovizmin, V. M.; et al., 80e:76060** *and* **Golovizmin, V. M.; et al., 80i:76046**

Savenkova, N. P. *See* **Gordeev, A. V.; et al., 80k:76077**

Singh, Punyatma (*with* Verma, R. L.) Free convection fluctuating flow on a horizontal magnetized plate. **80m:76081**

de Socio, Luciano (*with* Renno, Pasquale) On the boundary layer function in M.H.D. flows over a flat plate. (Italian summary) **80d:76103**

Tajima, T. *See* **Leboeuf, J. N.; et al., 80b:76044**

Thomas, H. *See* **Büttiker, M., 80c:76058**

Vabiščevič, P. N. Numerical solution of the problem of MHD-equilibrium in a casing of arbitrary cross section. (Russian. English summary) **80k:76080**

Verma, R. L. *See* **Singh, Punyatma, 80m:76081**

Wilson, P. R. Wave propagation in a magnetic flux sheath in the presence of a velocity field. **80m:76082**

Yanovitch, Michael Vertically propagating hydromagnetic waves in an isothermal atmosphere with a horizontal magnetic field. **80k:76081**

Zajączkowski, Wojciech Riemann invariants interaction in MHD double waves. **80m:76083**

Želnorovič, V. A. Integrals of Newtonian equations and nonstationary one-dimensional exact solutions for models of magnetizable fluids with internal angular momentum. **80c:76064**

One-dimensional nonstationary waves in magnetic fluids with intrinsic angular momentum. **80m:76084**

Secondary classifications:

Arcidiacono, Giuseppe Tachyons and magnetic monoples in the de Sitter universe. (Italian) **(80c:83030)**

(Brušlinskiĭ, K. V.) *See* **Two-dimensional numerical models of a plasma, (80k:82057)**

Georgantopoulos, G. A. (*with* Nanousis, N. D.) Effects of mass transfer of the hydromagnetic free convective flow in the Stokes' problem. **(80m:85003)**

Granik, I. S. (*with* Martinson, L. K.) Motion of boundary of support of generalized solution in magnetic rheology problems. **(80g:35120)**

ter Haar, D. *See* **Škorić, M. M., (80k:82053)**

Hasegawa, Akira (*with* Maclennan, Carol G.; Kodama, Yuji) Nonlinear behavior and turbulence spectra of drift waves and Rossby waves. **(80j:76017)**

Kaljakin, L. A. Construction of the asymptotics of the solutions of a small-parameter magnetohydrodynamic problem. I. Rectilinear flow on a rectangular canal. Superconductive wall perpendicular to the magnetic field. (Russian) **(80d:35029)**

Kiang, David *See* **Tam, Kwok Kee, (80k:82081)**

Kodama, Yuji *See* **Hasegawa, Akira; et al., (80j:76017)**

Maclennan, Carol G. *See* **Hasegawa, Akira; et al., (80j:76017)**

Martinson, L. K. *See* **Granik, I. S., (80g:35120)**

Nanousis, N. D. *See* **Georgantopoulos, G. A., (80m:85003)**

Roberts, K. V. The solution of hyperbolic equations in magnetohydrodynamics. **(80k:65099)**

Samarskiĭ, A. A. On numerical simulation in fluid dynamics. **(80k:76001)**

Singh, J. B. *See* **Verma, B. G., (80g:85005)**

Škorić, M. M. (*with* ter Haar, D.) Higher electron nonlinearities in the dynamics of Langmuir collapse. **(80k:82053)**

Smith, Peter On the construction of operators and bounding functionals for dual extremum principles. (German and Russian summaries) **(80b:49010)**

Takeda, Tatsuoki (*with* Toi, Kazuo; Tsunematsu, Toshihide) Application of nonlinear optimization algorithms to the problems in plasma physics and thermonuclear fusion research. **(80g:93028)**

Tam, Kwok Kee (*with* Kiang, David) The relativistic Boltzmann equation and the equations of magnetohydrodynamics with radiative reaction. **(80k:82081)**

Toi, Kazuo *See* **Takeda, Tatsuoki; et al., (80g:93028)**

Tsunematsu, Toshihide *See* **Takeda, Tatsuoki; et al., (80g:93028)**

Vacca, Maria Teresa Equations of motion of a perfectly elastic and polarized dielectric medium subject to a uniform magnetic field. (Italian. English summary) **(80g:78003)**

Verma, B. G. (*with* Singh, J. B.) Propagation of magnetogasdynamic spherical shock waves in an exponential medium. **(80g:85005)**

(*with* Vishwakarma, J. P.) Axially symmetric explosion in magnetogasdynamics. **(80m:76056)**

Vishwakarma, J. P. *See* **Verma, B. G., (80m:76056)**

Numerical models of a plasma *See* **Two-dimensional numerical models of a plasma, (80k:82057)**

Two-dimensional numerical models of a plasma ★*Двумерные численные модели плазмы.* (Russian) [Two-dimensional numerical models of a plasma] **(80k:82057)**

76X05 Ionized gas flow in electromagnetic fields; plasmic flow

Anile, A. M. (*with* Greco, Antonio) Nonlinear-wave propagation in a proton-electron plasma coupled with a strong radiation field. (Italian and Russian summaries) **80m:76085**

Arthur, M. D. (*with* Bowden, R. L.; Zweifel, P. F.) Analysis of the dispersion function for anisotropic longitudinal plasma waves. **80j:76053**

Asséo, E. (*with* Cesarsky, C. J.; Lachièze-Rey, M.; Pellat, R.) Parker instability in the presence of curved magnetic field lines. **80c:76061**

Bhand, S. C. *See* **Chhajlani, R. K.; et al., 80e:76066**

Bol'šov, L. A. (*with* Dyhne, A. M.; Kiselev, V. P.; Favorskiĭ, A. P.; Judin, A. I.) Generation of magnetic fields and heat transfer in a plasma corona. (Russian. English summary) **80e:76065**

Bowden, R. L. *See* **Arthur, M. D.; et al., 80j:76053**

Cesarsky, C. J. *See* **Asséo, E.; et al., 80c:76061**

Chhajlani, R. K. (*with* Bhand, S. C.; Dubey, V. S.) Wave propagation in anisotropic collisionless plasma. **80e:76066**

Dubey, V. S. *See* **Chhajlani, R. K.; et al., 80e:76066**

Dyhne, A. M. *See* **Bol'šov, L. A.; et al., 80e:76065**

Ensley, Donald L. Shape stability for a plasma contained within a standing electromagnetic field. **80i:76047**

Favorskiĭ, A. P. *See* **Bol'šov, L. A.; et al., 80e:76065**

Förste, Joachim Über die Grundgleichungen der Plasmadynamik auf der Basis der Zweiflüssigkeitstheorie. (English and Russian summaries) **80m:76086**

Grad, Harold Magnetic confinement fusion energy research. **80i:76048**

Greco, Antonio *See* **Anile, A. M., 80m:76085**

Gribben, R. J. *See* **Parkes, E. J., 80b:76045**

Ichikawa, Yoshi Hiko *See* **Konno, Kimiaki; et al., 80g:76054**

Infeld, E. (*with* Rowlands, G.) Stability of nonlinear ion sound waves and solitons in plasmas. **80h:76050**

Judin, A. I. *See* **Bol'šov, L. A.; et al., 80e:76065**

Kiselev, V. P. *See* **Bol'šov, L. A.; et al., 80e:76065**

Kodama, Yuji (*with* Taniuti, Tosiya) Higher order corrections to the soliton-velocity and the linear dispersion relation. **80h:76051**

Konno, Kimiaki (*with* Mitsuhashi, Teruo; Ichikawa, Yoshi Hiko) Propagation of ion acoustic cnoidal wave. **80g:76054**

Lachièze-Rey, M. *See* **Asséo, E.; et al., 80c:76061**

Mitsuhashi, Teruo *See* **Konno, Kimiaki; et al., 80g:76054**

Nakata, Isamu The limit shock waves in a plasma. **80f:76047**

Parkes, E. J. (*with* Gribben, R. J.) A note on the application of the method of strained coordinates to a problem of wave propagation in plasmas. **80b:76045**

Pellat, R. *See* **Améo, E.; et al., 80c:76061**
Rowlands, G. *See* **Infeld, E., 80h:76050**
Šivarova, A. (*with* Željazkov, I.) Low-frequency surface waves in a cylindrical nonisothermal plasma column. **80j:76054**
Stenflo, L. On the stability of a magnetized plasma in a large amplitude circularly polarized wave. **80m:76087**
Tauluti, Tooiya *See* **Kodama, Yuji, 80h:76051**
Zalesak, Steven T. Fully multidimensional flux-corrected transport algorithms for fluids. **80f:76048**
Željazkov, I. *See* **Šivarova, A., 80j:76054**
Zwolfel, P. F. *See* **Arthur, M. D.; et al., 80j:76053**

Secondary classifications:

Case, K. M. Properties of the Benjamin-Ono equation. **(80c:45014)**
Krylov, A. L. (*with* Liflic, A. E.) On natural oscillations of anisotropic media. (Russian) **(80m:35071)**
Liflic, A. E. *See* **Krylov, A. L., (80m:35071)**
Sulem, Catherine (*with* Sulem, Pierre Louis) Quelques résultats de régularité pour les équations de la turbulence de Langmuir. (English summary) **(80i:35165)**
Sulem, Pierre Louis *See* **Sulem, Catherine, (80i:35165)**

76Y05 Quantum hydrodynamics and relativistic hydrodynamics [See also 83C55, 85A30.]

Bray, M. Sur le mouvement isentropique en magnétohydrodynamique. (English summary) **80a:76053**
Chakraborty, T. K. Propagation of plane relativistic shock waves in a slowly moving medium. **80m:76088**
Date, T. H. *See* **Patil, N. P., 80c:76062**
Lerche, I. (*with* Wiita, Paul J.) Self-similar solutions and their stability for the flow of relativistic fluids through channels. **80m:76089**
Morozov, Ju. I. Taking account of the effects of gravitation, noninertial nature of the motion of the medium and the radiation spectrum in equations of relativistic radiation hydrodynamics. (Russian) **80f:76049**
Patil, N. P. (*with* Date, T. H.) Definite material scheme in relativistic magnetohydrodynamics. **80c:76062**
Prasad, Gunraj (*with* Sinha, B. B.) Spacelike FCRC symmetry mappings admitted by imperfect magnetofluid space-times. (Italian summary) **80m:76090**
Prozorkevič, A. V. *See* **Zubarev, D. N.; et al., 80h:76082**
Ray, G. Deb Similarity solutions for plane relativistic flow in a homogeneous medium. **80g:76055**
Sinha, B. B. *See* **Prasad, Gunraj, 80m:76090**
Smoljanskiĭ, S. A. *See* **Zubarev, D. N.; et al., 80h:76082**
Wiita, Paul J. *See* **Lerche, I., 80m:76089**
Zubarev, D. N. (*with* Prozorkevič, A. V.; Smoljanskiĭ, S. A.) Derivation of nonlinear generalized equations of quantum relativistic hydrodynamics. (Russian. English summary) **80h:76082**

Secondary classifications:

Ohmiya, Mayumi On the reflectionless solutions of the modified Korteweg-de Vries equation. **(80h:35118)**
Procopiuc, Gh. The equations of radiative relativistic magnetohydrodynamics. Invariance groups for one-dimensional flow. **(80m:76080)**
Rund, Hanno Clebsch representations and relativistic dynamical systems. **(80d:83054)**

76Zxx Biological fluid mechanics

76Z05 Physiological flows

Higdon, J. J. L. A hydrodynamic analysis of flagellar propulsion. **80d:76105**
Prasad, P. *See* **Ravindran, Renuka, 80d:76106**
Ravindran, Renuka (*with* Prasad, P.) A mathematical analysis of nonlinear waves in a fluid filled visco-elastic tube. (German summary) **80d:76106**

Secondary classifications:

Krause, Egon *See* **Liu, N. S., (80h:76013)**
Liu, N. S. (*with* Krause, Egon) Calculation of incompressible viscous flows in vessels with moving boundaries. (German summary) **(80h:76013)**
Smith, F. T. The separating flow through a severely constricted symmetric tube. **(80d:76916)**

76Z10 Biopropulsion in water and in air

Bouix, Maurice Poisson de révolution à paroi déformable dans un fluide incompressible visqueux. (English summary) **80k:76083**

76Z99 None of the above, but in this section

Secondary classifications:

Dunwoody, J. (*with* Nunziato, Jace W.) Nonlinear effects of temperature on simple shear flows of heat conducting viscoelastic fluids. **(80c:76028)**
Nunziato, Jace W. *See* **Dunwoody, J., (80c:76028)**

78–XX OPTICS, ELECTROMAGNETIC THEORY {For quantum optics, see 81K05.}

78–01 Elementary exposition, textbooks

Potekin, V. A. (*with* Tatarinov, V. N.) ★Теория когерентности электромагнитного поля. (Russian) [Coherence theory of an electromagnetic field] **80a:78001**
Tatarinov, V. N. *See* **Potekin, V. A., 80a:78001**

Secondary classifications:

Rowe, E. G. Peter Decomposition of vector fields by scalar potentials. **(80c:58001)**

78–02 Advanced exposition (research surveys, monographs, etc.)

(Babič, V. M.) *See* **Mathematical questions in the theory of wave propagation, 80h:78001**
Dolph, Charles L. (*with* Scott, Richard A.) Recent developments in the use of complex singularities in electromagnetic theory and elastic wave propagation. **80h:78001**
(Harrell, Evans M.) *See* **Thirring, Walter, 80e:78001b**
Scott, Richard A. *See* **Dolph, Charles L., 80h:78001**
Thirring, Walter ★Lehrbuch der mathematischen Physik. Band 2. **80e:78001a**
★A course in mathematical physics. Vol. 2. **80e:78001b**
Mathematical questions in the theory of wave propagation ★Математические вопросы теории распространения волн. 10. (Russian) [Mathematical questions in the theory of wave propagation. 10] **80k:78001**
Wave propagation *See* **Mathematical questions in the theory of wave propagation, 80k:78001**

Secondary classifications:

Keller, Joseph B. Rays, waves and asymptotics. **(80g:35002)**
Wang, Chao Cheu ★Mathematical principles of mechanics and electromagnetism. Part A: Analytical and continuum mechanics. **(80m:73001a)**
★Mathematical principles of mechanics and electromagnetism. Part B: Electromagnetism and gravitation. **(80m:73001b)**

78–03 Historical (must also be assigned at least one classification number from Section 01)

(Ampère, André-Marie) *See* **Hamamdjian, Pierre-Gérard, 80g:78001**
Hamamdjian, Pierre-Gérard Contribution d'Ampère au "théorème d'Ampère". (English summary) **80g:78001**

Secondary classifications:

Ackerman, James S. Leonardo's eye. **(80a:01009)**
(Al-Haytham) *See* **Sabra, Abdelhamid, (80c:01004)**
(Boas, Marie) *See* **Newton, Isaac, (80d:01011)**
(Cohen, I. Bernard) *See* **Newton, Isaac, (80d:01011)**
D'Agostino, Salvo Experiment and theory in Maxwell's work. The measurements for absolute electromagnetic units and the velocity of light. **(80j:01014)**
(Gillispie, Charles Coulston) *See* **Newton, Isaac, (80d:01011)**
(Green, George) *See* **Mayer, Daniel, (80j:01020)**
(Kuhn, Thomas S.) *See* **Newton, Isaac, (80d:01011)**
(Maxwell, James Clerk) *See* **D'Agostino, Salvo, (80j:01014)**
Mayer, Daniel George Green—founder of the mathematical theory of electrical and magnetic phenomena. (Czech. Russian and English summaries) **(80j:01020)**
(Miller, Perry) *See* **Newton, Isaac, (80d:01011)**
Newton, Isaac ★Isaac Newton's papers & letters on natural philosophy and related documents. **(80d:01011)**
(Pierucci, Mariano) *See* **Pignedoli, Antonio, (80b:01023)**
Pignedoli, Antonio Mariano Pierucci, 28 October 1893–19 December 1976. (Italian) **(80b:01023)**
Sabra, Abdelhamid ibn al-Haytham's "Treatise on the marks seen on the surface of the moon". (Arabic. English summary) **(80c:01004)**
(Schofield, Robert D.) *See* **Newton, Isaac, (80d:01011)**
(da Vinci, Leonardo) *See* **Ackerman, James S., (80a:01009)**
Wise, M. Norton The mutual embrace of electricity and magnetism. **(80b:01013)**
Obituary:
Pierucci, Mariano *See* **Pignedoli, Antonio, (80b:01023)**

78–04 Explicit machine computation and programs (not the theory of computation or programming)

78–05 Experimental papers

78–06 Proceedings, conferences, etc.

(Babič, B. M.) *See* **Mathematical questions in the theory of wave propagation, 80d:78001**
(Gjunninea, È. M.) *See* **Problems in the diffraction and propagation of waves, 80f:78002**
(Uslenghi, Piergiorgio L. E.) *See* **Electromagnetic scattering, 80f:78001**
Diffraction and propagation of waves *See* **Problems in the diffraction and propagation of waves, 80f:78002**
Electromagnetic scattering ★Electromagnetic scattering. **80f:78001**
Mathematical questions in the theory of wave propagation ★Математические вопросы теории распространения волн. 9. (Russian) [Mathematical problems in the theory of wave propagation. 9] **80d:78001**
Problems in the diffraction and propagation of waves ★Проблемы дифракции и распространения волн. XVI. (Russian) [Problems in the diffraction and propagation of waves. No. 16] **80f:78002**

Wave propagation *See* **Mathematical questions in the theory of wave propagation, 80d:78001**

Secondary classifications:

(Mikelsons, J.) *See* **Problems of electrodynamics and continuum mechanics, (80g:73005)**
Continuum mechanics *See* **Problems of electrodynamics and continuum mechanics, (80g:73005)**
Electrodynamics *See* **Problems of electrodynamics and continuum mechanics, (80g:73005)**
Problems of electrodynamics and continuum mechanics ★Вопросы электродинамики и механики сплошных сред IV. (Russian) [Problems of electrodynamics and continuum mechanics. IV] **(80g:73005)**

78A02 Foundations

Caldirola, P. A relativistic theory of the classical electron. **80k:78002**

78A05 Geometric optics

Anderson, N. (*with* Arthurs, A. M.) A variational principle for Maxwell's equations. **80b:78001**
Arthurs, A. M. *See* **Anderson, N., 80b:78001**
Bastiaans, M. J. Transport equations for the Wigner distribution function in an inhomogeneous and dispersive medium. **80k:78003**
Bochove, Erik Geometrical optics field of general optical systems. **80d:78002**
Borovikov, V. A. (*with* Kinber, B. E.) ★Геометрическая теория дифракции. (Russian) [The geometric theory of diffraction] **80c:78001**
Fiddy, M. A. (*with* Ross, G.) Analytic Fourier optics. The encoding of information by complex zeros. **80m:78001**
Herrmann, Jan Least-squares wave front errors of minimum norm. **80l:78001**
Hesin, A. Ja. *See* **Nikonenko, A. V.; et al., 80a:78002**
Jones, D. S. Electromagnetic tunnelling. **80e:78002**
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Kinber, B. E. *See* **Borovikov, V. A., 80c:78001**
Kline, Morris (*with* Kay, Irvin W.) ★Electromagnetic theory and geometrical optics. **80c:78002**
Kriegsmann, Gregory A. (*with* Williams, Michael) On the tracing of light rays through deformed glass rods with radially graded refractive indices. **80c:78003**
Nikonenko, A. V. (*with* Stojancev, V. T.; Hesin, A. Ja.) The exactness of the method of approximate calculation of the area of an image at a given level of optical density. (Russian) **80a:78002**
Nye, J. F. Optical caustics from liquid drops under gravity: observations of the parabolic and symbolic umbilics. **80h:78002**
Ross, G. *See* **Fiddy, M. A., 80m:78001**
Stojancev, V. T. *See* **Nikonenko, A. V.; et al., 80a:78002**
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Williams, Michael *See* **Kriegsmann, Gregory A., 80c:78003**

Secondary classifications:

Il'inskiĭ, A. S. Mathematical methods of the electrodynamics of radiating systems. (Russian) **(80d:78026)**
(*with* Popov, O. B.) The direct method in diffraction problems on smooth unbounded undulating surfaces in inhomogeneous media. (Russian) **(80g:78008)**
McCoy, John J. On an extended parabolic-coherence function propagation model. **(80d:76078)**
Park, David ★Classical dynamics and its quantum analogues. **(80m:70003)**
Popov, O. B. *See* **Il'inskiĭ, A. S., (80g:78008)**
Theocaris, Pericles S. Experimental study of plane elastic contact problems by the pseudocaustics method. **(80h:73055)**

78A10 Physical optics

Agrawal, G. P. (*with* Carmichael, H. J.) Optical bistability through nonlinear dispersion and absorption. **80d:78003**
Anderson, D. (*with* Bonnedal, M.) Variational approach to nonlinear self-focusing of Gaussian laser beams. **80a:78003**
Arutjunjan, G. A. *See* **Nikogosjan, A. G., 80a:78004**
Bertero, M. (*with* de Mol, C.; Viano, G. A.) On the problems of object restoration and image extrapolation in optics. **80d:78004**
Bonnedal, M. *See* **Anderson, D., 80a:78003**
Carmichael, H. J. *See* **Agrawal, G. P., 80d:78003**
Česnokov, S. S. (*with* Egorov, K. D.; Kandidov, V. P.; Vyslouh, V. A.) The finite element method in problems of nonlinear optics. **80j:78001**
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Ebeling, K. J. Statistical properties of spatial derivatives of the amplitude and intensity of monochromatic speckle patterns. **80m:78002**
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Kandidov, V. P. *See* **Česnokov, S. S.; et al., 80j:78001**
Martínez-Herrero, R. Expansion of complex degree of coherence. (Italian and Russian summaries) **80k:78004**
Mišin, I. V. (*with* Suškevič, T. A.) Mathematical model of a space-frequency characteristic of an "underlying surface-atmosphere" system. (Russian. English summary) **80m:78003**
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Upstill, C. Light caustics from rippling water. **80e:78003**
Viano, G. A. *See* **Bertero, M.; et al., 80d:78004**
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Bassanini, Piero An application of Lax's estimates to the determination of critical crystal thickness in nonlinear laser optics. **(80m:35053)**
Bochove, Erik Geometrical optics field of general optical systems. **(80d:78002)**
Klass, V. A. (*with* Krasil'nikov, V. N.) On short wave asymptotics of the field reflected from a sphere with a time-dependent radius. (Russian) **(80g:78009)**
Krasil'nikov, V. N. *See* **Klass, V. A., (80g:78009)**

78A15 Electron optics

Gesztesy, F. (*with* Pittner, L.) Diffraction of non-relativistic electron waves by a cylindrical capacitor. **80d:78005**
Pittner, L. *See* **Gesztesy, F., 80d:78005**

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Bullough, R. K. (*with* Jack, P. M.; Kitchenside, P. W.; Saunders, R.) Solitons in laser physics. **(80k:81202)**
Jack, P. M. *See* **Bullough, R. K.; et al., (80k:81202)**
Kitchenside, P. W. *See* **Bullough, R. K.; et al., (80k:81202)**
Saunders, R. *See* **Bullough, R. K.; et al., (80k:81202)**

78A20 Space charge waves

Mokis, Ju. I. The convergence and accuracy of the macroparticle method. (Russian) **80k:78007**

Secondary classifications:

van Erkelens, H. (*with* van Leeuwen, W. A.) Relativistic Boltzmann theory for a plasma. IV. A variational method. **(80a:82033b)**
van Leeuwen, W. A. *See* **van Erkelens, H., (80a:82033b)**

78A25 Electromagnetic theory, general

Andreeva, T. A. (*with* Berezovs'kiĭ, A. A.; Gordinskiĭ, L. D.; Jakovlev, V. I.) A variational method of calculating the electromagnetic field and losses in the end sections of a turbogenerator. (Russian) **80f:78003**
Anile, A. M. (*with* Pantano, Pietro) Foundation of geometrical optics in general relativistic dispersive media. **80c:78004**
Barut, A. O. Electromagnetic fields on manifolds: Betti numbers, monopoles and strings, minimal coupling. **80d:78006**
Berezovs'kiĭ, A. A. *See* **Andreeva, T. A.; et al., 80f:78003**
Boillat, Guy Convexité et hyperbolicité en électrodynamique non linéaire. (English summary) **80m:78004**
Bol'šov, L. A. (*with* Kiričenko, T. K.; Favorskiĭ, A. P.) Numerical analysis of small-scale instability of coherent interaction of light impulses with resonance suppressing media. (Russian) **80a:78005**
Boulanger, Philippe (*with* Mayné, Georges) Modèles intégro-différentiels en électrodynamique linéaire des continus. (English summary) **80a:78006**
Brana, Josip (*with* Ljolje, Krunoslav) Lagrangian formalism for electromagnetic field in spinor notation. (Serbo-Croatian summary) **80d:78007**
Brandt, Richard A. (*with* Neri, Filippo) Nonabelian gauge invariant classical Lagrangian formalism for point electric and magnetic charge. **80e:78004**
Cohn, Jack Uniqueness of Maxwell's equations. **80h:78003**
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Domingos, J. M. (*with* Pascoal, H.) From the classical field with sources to multipole matrix elements. **80c:78005**
Doria, Francisco Antonio Noncontinuous gauge potentials without magnetic monopoles. **80e:78005**
Emec, Ju. P. *See* **Gorodia, L. V.; et al., 80h:78002**
Erdem, A. Ünal (*with* Dikmen, Murat) Nonlocal electromagnetic interactions in micromorphic dielectric solids. (Turkish summary) **80k:78008**
(*with* Dikmen, Murat) Balance laws of electromagnetism in micromorphic continua subject to nonlocal interactions. (Turkish summary) **80k:78009**
Esposito, Raffaele A macroscopic relativistic thermodynamics of magnetothermoelastic continua. (Italian summary) **80d:78009**
Favorskiĭ, A. P. *See* **Bol'šov, L. A.; et al., 80a:78005**
Fuščič, V. I. (*with* Nikitin, A. G.) Group properties of Maxwell equations. (Russian. English summary) **80e:78006**
(*with* Nikitin, A. G.) On the new invariance group of Maxwell equations. **80c:78006**
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Garola, Claudio A formulation of the Ohm law consistent with Maxwell equations and relativity. **80m:78006**
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Gorodia, L. V. (*with* Emec, Ju. P.; Žukova, N. I.; Zvirovič, E. I.) Application of the generalized Riemann boundary value problem to the calculation of electric fields. (Russian. English summary) **80h:78002**
Harris, Jonathan H. (*with* Semon, Mark D.) A review of the Aharonov-Carmi thought experiment concerning the inertial and electromagnetic vector potentials. **80m:78007**
Healy, W. P. Line-integral Lagrangians for the electromagnetic fields interacting with charged particles. **80d:78010**

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Jakovlev, V. I. *See* **Andreeva, T. A.**; **et al.**, **80f:78003**

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Kaleva, S. I. *See* **Kalev, D. A.**, **80k:78010**

Kričenko, T. K. *See* **Bol'šov, L. A.**; **et al.**, **80a:78005**

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Kleiza, Jonas *See* **Kleiza, Vytautas**, **80d:78012**

Kleiza, Vytautas (*with* Kleiza, Jonas) An investigation of Maxwell equations with tensor coefficients. (Russian. Lithuanian and English summaries) **80d:78012**

Knjaz', A. I. Boundary value problems of the theory of functions in the theory of the electromagnetic field. (Russian. English summary) **80e:78007**

Kolek, Władysław Methods of investigation and technical problems of electromechanics. (Polish. Russian and English summaries) **80d:78013**

Kolparčenok, V. N. (*with* Šestopalov, V. P.) A rigorous solution of the problem of the perturbation of two circular cylinders with longitudinal slits. (Russian) **80f:78004**

Kranyš, Miroslav About the equivalence of Abraham's and Minkowski's electrodynamics. (French summary) **80e:78008**

Kravcov, V. V. Approximation of the electromagnetic field by antenna potentials. (Russian) **80m:78008**

Kresin, Ju. V. (*with* Stražev, V. I.) Two-potential description of an electromagnetic field. (Russian. English summary) **80c:78007**

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Kučaĭ, S. A. (*with* Tarasov, R. P.) Direct and inverse problems of perturbation propagation in a directional medium, and their approximate solution. (Russian) **80m:78009**

Kupradze, V. D. On the question of the solution of exterior problems of electrodynamics. (Russian) **80a:78006**

Lebrun, J.-P. Hamiltonian formulation in generalized linear electrodynamics. (French summary) **80g:78002**

Ljolje, Krunoslav *See* **Brana, Josip**, **80d:78007**

L'vovič, A. Ju. The derivation of the Lagrange-Maxwell equations. (Russian. English summary) **80f:78005**

Maglevannyĭ, I. I. Equations of electrodynamics in noninertial frames of reference. (Russian) **80a:78009**

Martens, Roger Lower bounds for the electric susceptibility. **80e:78009**

Maugin, Gérard A. Sur l'objectivité des entités électromagnétiques dans un corps matériel en mouvement à l'approximation galiléenne. (English summary) **80k:78011**

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Miglietta, F. (*with* Ricci, M.) Infinite conservation laws for the electromagnetic and the asymptotic gravitational fields. (Italian and Russian summaries) **80d:78015**

Motylev, L. Ju. Transformation of the system of Maxwell equations in an inhomogeneous medium to an equation on the rotation group. (Russian. English summary) **80k:78012**

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Neri, Filippo *See* **Brandt, Richard A.**, **80e:78004**

Nikitin, A. G. *See* **Fušič, V. I.**, **80c:78006** *and* **Fušič, V. I.**, **80c:78006**

Pan, Liang Ru Frozen-in and resistive force-free magnetic fields. (Chinese. English summary) **80d:78016**

Pantano, Pietro *See* **Anile, A. M.**, **80c:78004**

Pascoal, H. *See* **Domingos, J. M.**, **80c:78005**

Ricci, M. *See* **Miglietta, F.**, **80d:78015**

Rideau, G. Quantization of the Maxwell field in linear conformal invariant gauges. **80f:78003**

Romano, Antonio Proof that the formulations of the electrodynamics of moving bodies are equivalent. **80f:78004**

Rowe, E. G. Peter Structure of the energy tensor in the classical electrodynamics of point particles. **80k:78013**

Salzer, K. Bestimmung des Abschirmtensors der magnetischen Kernresonanz und des Tensors der magnetischen Suszeptibilität durch numerische Berechnung der Stromdichte in der Ladungsverteilung diamagnetischer Moleküle. (English summary) **80k:78014**

Sanchez-Palencia, Enrique Méthode d'homogénéisation pour l'étude de matériaux hétérogènes. Phénomènes de mémoire. **80j:78002**

Savin, M. G. ★Проблема калибровки Лоренца в анизотропных средах. (Russian) [The Lorentz gauge problem in anisotropic media] **80k:78015**

Schmutzer, Ernst Electromagnetic field of a rotating permanently magnetized sphere in the inertial and the comoving frames of reference. **80h:78004**

Semon, Mark D. *See* **Harris, Jonathan H.**, **80m:78007**

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Sibul, Leon H. Stochastic Green's functions and scattering functions. **80k:78005**

Šteingrad, Z. A. The system of Einstein-Maxwell equations and the calibration of the four-vector of the electromagnetic field. (Russian) **80b:78003**

Stražev, V. I. *See* **Kresin, Ju. V.**, **80c:78007** *and* **Kruglov, S. I.**; **et al.**, **80d:78014**

Sveshnikov, A. G. Direct and inverse problems of electrodynamics. (Russian) **80c:78008** (*with* Il'inskiĭ, A. S.) Direct and inverse problems of electrodynamics. (Russian) **80c:78009**

Tappert, F. D. Laser fusion. **80f:78005**

Tarasov, R. P. *See* **Kučaĭ, S. A.**, **80m:78009**

Tolkačev, E. A. *See* **Kruglov, S. I.**; **et al.**, **80d:78014**

Usón, Juan M. *See* **García, Luis**, **80m:78005**

Vacca, Maria Teresa Equations of motion of a perfectly elastic and polarized dielectric medium subject to a uniform magnetic field. (Italian. English summary) **80g:78003**

Vaĭnštein, S. I. On the theory of a turbulent dynamo. (Russian. English summary) **80a:78010**

Verite, J. C. *See* **Néděléc, J.-C.**, **80e:78010**

Werner, P. Selfadjoint extensions of the Laplace operator with respect to electric and magnetic boundary conditions. **80i:78006**

Yeh, Pochi Electromagnetic propagation in birefringent layered media. **80h:78006**

Žukova, N. I. *See* **Gorodiĭa, L. V.**; **et al.**, **80b:78002**

Zvirovič, E. I. *See* **Gorodiĭa, L. V.**; **et al.**, **80b:78002**

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Bampi, Franco A remark on the null electromagnetic field. (Italian summary) **(80e:83020)**

Belocerkovskiĭ, O. M. (*with* Mitnickiĭ, V. Ja.) Some exact solutions of the problem of a magnetic dipole surrounded by an infinitely conducting fluid. (Russian) **(80f:35016)**

van Erkelens, H. (*with* van Leeuwen, W. A.) Relativistic Boltzmann theory for a plasma. III. Viscous phenomena. **(80a:82033a)**

Gambini, R. (*with* Salamó, S.) Null-plane analysis of electromagnetism with magnetic charges. (Italian summary) **(80c:81042)**

Homentcovschi, Dorel Sur la forme en distributions des équations de Maxwell. (English and German summaries) **(80m:35067)**

Kresz, Rainer The treatment of a Neumann boundary value problem for force-free fields by an integral equation method. **(80c:35068)**

Lapiedra, R. (*with* Molina, A.) Classical predictive electrodynamics of two charges with radiation: general framework. I. **(80h:83023a)**

van Leeuwen, W. A. *See* **van Erkelens, H.**, **(80a:82033a)**

Leper, David E. *See* **Roberts, P. H.**, **(80g:76052)**

Miranker, W. L. (*with* Willner, B. E.) Global analysis of magnetic domains. **(80m:82021)**

Mitnickiĭ, V. Ja. *See* **Belocerkovskiĭ, O. M.**, **(80f:35016)**

Molina, A. *See* **Lapiedra, R.**, **(80h:83023a)**

Roberts, P. H. (*with* Loper, David E.) On the diffusive instability of some simple steady magnetohydrodynamic flows. **(80g:76052)**

Salamó, S. *See* **Gambini, R.**, **(80c:81042)**

Tanabe, Yukio New exact Einstein-Maxwell fields for a massless charge. **(80f:83029)**

Tiwari, Ramji A class of nonstatic cylindrically symmetric coupled zero-mass and electromagnetic fields. **(80f:83008)**

Willner, B. E. *See* **Miranker, W. L.**, **(80m:82021)**

78A30 Electro- and magnetostatics

Fil'c, R. V. A differential grid method for the calculation of the magnetic field in nonlinear media. (Russian. English summary) **80k:78016**

Gricjuk, N. P. *See* **Ostudin, B. A.**, **80c:78012**

Jeffrey, D. J. The temperature field or electric potential around two almost touching spheres. **80d:78017**

Knjaz', A. I. Applications of functions of a complex variable to calculations of three-dimensional fields. (Russian) **80d:78018**

Kul'ko, I. P. *See* **Kul'ko, V. F.**, **80d:78019**

Kul'ko, V. F. (*with* Kul'ko, I. P.) A method for obtaining the solutions of boundary value problems in electrodynamics in a closed form. (Russian) **80d:78019**

Liniger, Werner (*with* Odeh, F.) A perturbation calculation of the *I-V* characteristic of an extended Josephson junction. **80d:78020**

Love, J. D. A note on the capacitance of two closely separated spheres. **80j:78003**

Maergoiz, I. D. ★Итерационные методы расчета статических полей в неоднородных, анизотропных и нелинейных средах. (Russian) [Iteration methods for computing static fields in inhomogeneous, anisotropic and nonlinear media] **80d:78021**

Moussiaux, A. (*with* Ronveaux, André) Electrostatic capacity of two unequal adhering spheres. **80b:78004**

Negro, Angelo Some variational formulation of nonlinear magnetic field problems in multiply connected domains. (Italian summary) **80e:78011**

Odeh, F. *See* **Liniger, Werner**, **80d:78020**

Ostudin, B. A. (*with* Gricjuk, N. P.) Numerical solution of some boundary value problems in potential theory by means of the self-regularization method. (Russian. English summary) **80e:78012**

Qu, Chao Chun Distribution of the electric potential of a point source in azimuthally heterogeneous media. (Chinese) **80e:78013**

Ronveaux, André *See* **Moussiaux, A.**, **80b:78004**

(Van Dyke, M.) *See* **Jeffrey, D. J.**, **80d:78017**

Wollman, Stephen The spherically symmetric Vlasov-Poisson system. **80m:78010**

Secondary classifications:

Uhlmann, A. Some remarks on reflection positivity. **(80k:82018)**

78A35 Motion of charged particles

Barut, A. O. Electrodynamics with strings and monopoles. **80a:78012**

Ferencz, Cs. Electromagnetic wave propagation: the analysis of the group velocity. (German and Russian summaries) **80d:78022**

Ferrari, Ezio Formulations of electrodynamics with magnetic monopoles. **80a:78011**

Gorev, V. V. (*with* Koldoba, A. V.; Poveščenko, Ju. A.; Popov, Ju. P.; Rudakov, L. I.) Numerical simulation of strong current relativistic electron beam diffusion through matter. (Russian. English summary) **80a:78013**

Hasegawa, Akira (*with* Imamura, Tsutomu; Mima, Kunioki; Taniuti, Tosiya) Stationary spectrum of pseudo-three-dimensional electrostatic turbulence in magnetized plasmas. **80c:78010**

Herrera, J. C. Equation of motion in classical electrodynamics. **80m:78011** Equation of motion in classical electrodynamics. II. **80m:78012**

Himenko, V. I. On the average number of excursions of the trajectory of a non-Gaussian random process above a given level. (Russian. English summary) **80a:78014**

Howard, Roger Work and energy in electrostatic and magnetic systems. **80m:78013**

Imamura, Tsutomu *See* **Hasegawa, Akira**; **et al.**, **80c:78010**

Koldoba, A. V. *See* Gorev, V. V.; et al., **80a:78013**
Miura, Kunioki *See* Hasegawa, Akira; et al., **80c:78010**
Murdock, J. A. On the well-posed two-body problem in electrodynamics and special relativity. II. **80g:78004**
Popov, Ju. P. *See* Gorev, V. V.; et al., **80a:78013**
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Rishad, A. A. (*with* Takwale, R. G.) Boundary effects on Čerenkov radiation in an alternating electric field. **80h:78017**
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Smith, J. *See* Whitson, J. C.; et al., **80a:78015**
Takwale, R. G. *See* Rishad, A. A., **80h:78017**
Tanuti, Tosiya *See* Hasegawa, Akira; et al., **80c:78010**
Whealton, J. H. *See* Whitson, J. C.; et al., **80a:78015**
Whitson, J. C. (*with* Smith, J.; Whealton, J. H.) Calculations involving ion beam sources. **80a:78015**
Zabov, V. I. Bundle transport of charged particles in an electromagnetic field. (Russian) **80d:78023**

Secondary classifications:

Abljustin, V. I. (*with* Petuhov, Ju. M.) Application of the averaging method in the problem of the interaction of atoms with radio frequency fields. (Russian. English summary) **(80e:34026)**
Ashworth, D. G. (*with* Davies, P. A.) Transformations between inertial and rotating frames of reference. **(80g:83002)**
Caldirola, P. A relativistic theory of the classical electron. **(80k:78002)**
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Fradkin, D. M. A class of double integrals involving Gaussian and trigonometric factors. **(80e:65029)**
Petuhov, Ju. M. *See* Abljustin, V. I., **(80e:34026)**
Strampp, W. On Vlasov's equation with mollified density for an electron gas in an exterior magnetic field. **(80j:82022)**

78A40 Waves and radiation

Arsenin, V. Ja. (*with* Zagonov, V. P.) A class of inverse problems of the propagation of radio waves. (Russian) **80c:78011**
Baltes, H. P. *See* Hoenders, B. J., **80m:78017**
Bellier, M. I. Inverse problem of plane wave scattering for a class of layered media. (Russian. English summary) **80d:78024**
Bogatyrev, Ju. K. (*with* Gorškov, K. A.) The interaction of waves and the generation of solitons in a system with nonlinear capacitive boundaries. **80m:78015**
Borrelli, Alessandra (*with* Marziani, Marziano) Resonance effects in the interaction between radio waves in a magneto-active plasma. (Italian. English summary) **80e:78014**
Colton, David The solution of problems in radiowave propagation by the method of parabolic equations and transformation operators. **80h:78018**
Dupree, Thomas H. (*with* Tetreault, David J.) Renormalized dielectric function for collisionless drift wave turbulence. **80a:78016**
Fedorova, L. A. *See* Makarov, G. I., **80a:78018**
Filipčuk, T. S. *See* Karamzin, Ju. N.; et al., **80g:78005**
Gaponov-Grehov, A. V. (*with* Rabinovič, M. I.; Šapiro, M. F.) A possible mechanism for the stochastization of pulsations of the radiation intensity of OQG. (Russian) **80h:78005**
Gaunaurd, G. C. (*with* Überall, Herbert) Acoustics of finite beams. **80a:78017**
Gorškov, K. A. *See* Bogatyrev, Ju. K., **80m:78015**
Grebogi, Celso (*with* Kaufman, Allan N.; Littlejohn, Robert G.) Hamiltonian theory of ponderomotive effects of an electromagnetic wave in a nonuniform magnetic field. **80h:78019**
Harrington, Roger F. (*with* Mautz, Joseph R.) Computational methods for transmission of waves through apertures. **80m:78016**
Hayes, M. (*with* Musgrave, M. J. P.) On energy flux and group velocity. **80d:78025**
Hoenders, B. J. (*with* Baltes, H. P.) On the existence of nonradiating frequencies in the radiation from a stochastic current distribution. **80m:78017**
Il'inskiĭ, A. S. Mathematical methods of the electrodynamics of radiating systems. (Russian) **80d:78026**
Jaggard, D. L. *See* Mickelson, A. R., **80h:78006**
Karamzin, Ju. N. (*with* Suhorukov, A. P.; Filipčuk, T. S.) A new class of coupled solitons in dispersive media with quadratic nonlinearity. (Russian) **80g:78005**
Kaufman, Allan N. *See* Grebogi, Celso; et al., **80h:78019**
Keller, Joseph B. Progress and prospects in the theory of linear wave propagation. **80c:78012**
Ko, W. L. *See* Mittra, Raj; et al., **80d:78027**
Kong, J. A. *See* Tsang, L., **80h:78008**
Lauro, Giuliana (*with* Renno, Pasquale) Asymptotic behavior of the electromagnetic field in an ionized gas. (Italian. English summary) **80c:78013**
Littlejohn, Robert G. *See* Grebogi, Celso; et al., **80h:78019**
Malo, Alfonso (*with* Monte, Anna-Maria) The propagation of electromagnetic waves in an ionized gas. (Italian. English summary) **80i:78007**
Makarov, G. I. (*with* Fedorova, L. A.) The method of multiple reflected waves. (Russian. English summary) **80a:78018**
Marziani, Marziano *See* Borrelli, Alessandra, **80e:78014**
Mautz, Joseph R. *See* Harrington, Roger F., **80m:78016**
Mickelson, A. R. (*with* Jaggard, D. L.) Electromagnetic wave propagation in almost periodic media. **80h:78006**
Mittra, Raj (*with* Ko, W. L.; Rahmat-Samii, Y.) Solution of electromagnetic scattering and radiation problems using a spectral domain approach—a review. **80d:78027**
Monte, Anna-Maria *See* Malo, Alfonso, **80i:78007**
Musgrave, M. J. P. *See* Hayes, M., **80d:78025**
Pisarenko, V. G. The exact solution of the nonlinear Schrödinger equation describing the self-channeling of a laser beam. (Russian. English summary) **80g:78006**
Rabinovič, M. I. *See* Gaponov-Grehov, A. V.; et al., **80h:78005**
Rahmat-Samii, Y. *See* Mittra, Raj; et al., **80d:78027**
Renno, Pasquale *See* Lauro, Giuliana, **80c:78013**
Robnik, Marko Wave propagation in a random stratified medium. **80k:78020**
Rowe, E. G. Peter The elementary sources of multipole radiation. **80e:78015**
Sabbi, Sandra On some properties of Toupin-Rivlin media. (Italian) **80e:78019**
Šapiro, M. F. *See* Gaponov-Grehov, A. V.; et al., **80h:78005**
Srumova, F. V. Asymptotic behavior of the energy emitted into space by an almost periodic source of electromagnetic waves. (Russian. Tajiki summary) **80a:78020**
Strumia, A. Transmission and reflection of a discontinuity wave through a characteristic shock in nonlinear optics. (Italian summary) **80h:78007**
Suhorukov, A. P. *See* Karamzin, Ju. N.; et al., **80g:78005**
Tarasov, R. P. Errata: "Ray equations for arbitrarily curved cylinders with refractive index varying according to the cross section, and some cases of their integration" (Z. Vyčisl. Mat. i Mat. Fiz. 16 (1976), no. 6, 1539–1550). (Russian) **80e:78016**
Tetreault, David J. *See* Dupree, Thomas H., **80a:78016**
Tsang, L. (*with* Kong, J. A.) Modified modal theory of transient response in layered media. **80h:78008**
Überall, Herbert *See* Gaunaurd, G. C., **80a:78017**
Wünsche, A. Dispersionsgleichungen für Oberflächenwellen und verallgemeinerte Brewster-Fälle an der Grenze zu optisch einachsigen Medien. (English summary) **80m:78018**
Zagonov, V. P. *See* Arsenin, V. Ja., **80c:78011**

Secondary classifications:

Bécus, Georges A. Diffusion approximation to wave propagation in imperfectly periodic structures. (French summary) **(80j:73018)**
Bhand, S. C. *See* Chhajlani, R. K.; et al., **(80e:76066)**
Chhajlani, R. K. (*with* Bhand, S. C.; Dubey, V. S.) Wave propagation in anisotropic collisionless plasma. **(80e:76066)**
Dmitriev, V. I. Mathematical models in electromagnetic methods for investigating the Earth's structure. (Russian) **(80d:86005)**
Dobrobotov, S. Ju. (*with* Maslov, V. P.) Resonance phenomena in the nonlinear equation of a regular semiconductor $h^2\Delta u = \sinh(u)$. (Russian. English summary) **(80k:82065)**
Dubey, V. S. *See* Chhajlani, R. K.; et al., **(80e:76066)**
Hillion, Pierre Numerical solution of the spinor Helmholtz equation in optics. **(80f:65129)**
Krasnuikin, P. E. Forced vibrations of an infinite elastic plate. (Russian) **(80h:73043)**
Kul'ko, V. F. The generalization of a formula of operational calculus and its practical application in the computation of electromagnetic fields. (Russian) **(80b:44005)**
Lax, M. Analytic solution of a model pulse propagation problem. **(80c:35015)**
Maslov, V. P. *See* Dobrobotov, S. Ju., **(80k:82065)**
Noguchi, Akira (*with* Watanabe, Hideaki; Sakai, Kiyoshi) Solitons of the nonlinear self-dual network with saturable property. **(80a:35106)**
O'Brien, D. M. Inequalities satisfied by electromagnetic radiation fields. **(80c:78018)**
Rudraiah, N. (*with* Venkatachalappa, M.) Propagation of hydromagnetic waves in a perfectly conducting non-isothermal atmosphere in the presence of rotation and a variable magnetic field. **(80d:86011)**
Sakai, Kiyoshi *See* Noguchi, Akira; et al., **(80a:35106)**
Venkatachalappa, M. *See* Rudraiah, N., **(80d:86011)**
Watanabe, Hideaki *See* Noguchi, Akira; et al., **(80a:35106)**

78A45 Diffraction, scattering [See also 34E20 for WKB methods.]

Aksenov, V. P. (*with* Mironov, V. L.) The effect of backscattering amplification under the conditions of strong intensity fluctuations. (Russian. English summary) **80c:78014**
Apel'cin, V. F. An investigation of axially symmetric problems of the diffraction of electromagnetic waves on locally inhomogeneous bodies for two distinct polarizations. (Russian) **80d:78028**
Justification of the projection method for solving axially symmetric problems of diffraction on locally inhomogeneous bodies. (Russian) **80m:78019**
Bahar, Ezekiel Full-wave solutions for the scattered radiation fields from rough surfaces with arbitrary slope and frequency. **80m:78020**
Baum, Carl E. The role of scattering theory in electromagnetic interference problems. **80h:78009**
Bennett, C. Leonard The numerical solution of transient electromagnetic scattering problems. **80m:78021**
van den Berg, Peter M. (*with* Fokkema, Jacob T.) The Rayleigh hypothesis in the theory of diffraction by a cylindrical obstacle. **80h:78021**
Berry, M. V. Diffractals. **80i:78008**
Bleistein, Norman *See* Cohen, Jack K., **80j:78004**
Chang, Shu Kong *See* Mei, Kenneth K.; et al., **80k:78025**
Cohen, Jack K. (*with* Bleistein, Norman) The singular function of a surface and physical optics inverse scattering. **80j:78004**
Colton, David Transformation operators and wave propagation in a spherically stratified medium. **80d:78029**
Das, Mahadeb *See* Khan, Tara Prasad; et al., **80c:78018**
Das, Rabindra Nath Exact solution of the problem of diffuse reflection and transmission by the method of Laplace transform and linear singular operators. **80a:82017**
Debnath, Lokenath *See* Khan, Tara Prasad; et al., **80c:78018**
Efimov, S. P. (*with* Muratov, R. Z.) Scattering theory interference theorems in vector problems of low-frequency diffraction. (Russian) **80a:78021**
Eremin, Ju. A. (*with* Il'inskiĭ, A. S.; Svešnikov, A. G.) A method of nonorthogonal series in problems of electromagnetic wave diffraction. (Russian) **80m:78022**
See also Zaharov, E. V., **80j:78009**
Erokin, G. A. (*with* Kočerževskiĭ, V. G.) On the question of the solvability of certain inverse diffraction problems. (Russian. English summary) **80a:78022**
Fel'd, Ja. N. Diffraction of electromagnetic waves at surfaces with inhomogeneous admittance. **80k:78022**

Fiddy, M. A. *See* **Ross, G.; et al., 80b:78008**
Fokkema, Jacob T. *See* **van den Berg, Peter M., 80k:78021**
Grigor'eva, N. S. Short wave diffraction over an interval. (Russian. English summary) **80e:78017**
Hurd, R. A. Low-frequency scattering by a slit in an impedance plane. (French summary) **80g:78007**
Il'inskiĭ, A. S. (*with* Popov, O. B.) The direct method in diffraction problems on smooth unbounded undulating surfaces in inhomogeneous media. (Russian) **80g:78008**
See also **Eremin, Ju. A.; et al., 80m:78022**
Ivanov, V. I. Computation of V. A. Fok functions. (Russian. English summary) **80k:78023**
Jones, D. S. Low frequency electromagnetic radiation. **80k:78024**
Khan, Tara Prasad (*with* Das, Mahadeb; Debnath, Lokenath) Nonlinear interaction of waves in a hot inhomogeneous magnetized plasma. **80e:78018**
Klass, V. A. (*with* Krasil'nikov, V. N.) On short wave asymptotics of the field reflected from a sphere with a time-dependent radius. (Russian) **80g:78009**
Kleinman, Ralph E. Low frequency electromagnetic scattering. **80j:78005**
(*with* Mack, R. B.) Scattering by linearly vibrating objects. **80e:78015**
Kočerževskiĭ, V. G. *See* **Erokhin, G. A., 80m:78022**
Korpel, Adrianus Two-dimensional plane wave theory of strong acousto-optic interaction in isotropic media. **80e:78019**
Krasil'nikov, V. N. *See* **Klass, V. A., 80g:78009**
Lavrent'ev, K. K. A problem of transient wave scattering on a one-dimensional obstruction. (Russian. English summary) **80g:78010**
Litzman, O. Two problems of the Ewald dynamical theory of diffraction: the extinction theorem and the Green function method. (Russian summary) **80c:78016**
Lundberg, Bengt Phase-integral treatment of wave reflexion by real potentials. **80c:78020**
Mack, R. B. *See* **Kleinman, Ralph E., 80c:78015**
Mahajan, Virendra N. Asymptotic behavior of diffraction images. (French summary) **80m:78023**
Manolitsakis, I. *See* **Ross, G.; et al., 80b:78008**
Masalov, S. O. Certain infinite systems in wave diffraction theory. (Russian. English summary) **80g:78011**
Maystre, D. *See* **Roger, A., 80d:78031**
Megrabov, A. G. On the determination of a set of point sources. (Russian) **80c:78017**
Mei, Kenneth K. (*with* Morgan, Michael E.; Chang, Shu Kong) Finite methods in electromagnetic scattering. **80k:78025**
Miller, E. K. (*with* Poggio, A. J.) Moment-method techniques in electromagnetics from an applications viewpoint. **80g:78012**
Mironov, V. L. *See* **Aksenov, V. P., 80c:78014**
Mittra, Raj (*with* Rahmat-Samii, Y.) A spectral domain analysis of high frequency diffraction problems. **80k:78026**
Morgan, Michael E. *See* **Mei, Kenneth K.; et al., 80k:78025**
Morrison, J. A. Integral equations for electromagnetic scattering by perfect conductors with two-dimensional geometry. **80b:78007**
Morton, R. A model for light-scattering by algae in water. **80g:78013**
Mur, G. Computation of electromagnetic fields scattered by a cylindrical inhomogeneity in a homogeneous medium of infinite extent. **80d:78030**
Muratov, R. Z. *See* **Efimov, S. P., 80a:78021**
Nieto-Vesperinas, M. *See* **Ross, G.; et al., 80b:78008**
Nussenzveig, H. M. Complex angular momentum theory of the rainbow and the glory. **80e:78021**
O'Brien, D. M. Inequalities satisfied by electromagnetic radiation fields. **80c:78018**
Okuno, Yoichi *See* **Yasuura, Kanenosuke, 80a:78024**
Orlov, Ju. I. (*with* Orlova, N. S.) An asymptotic method for the determination of the fields of diffraction of waves by convex bodies of revolution. (Russian. English summary) **80j:78006**
Orlova, N. S. *See* **Orlov, Ju. I., 80j:78006**
Poggio, A. J. *See* **Miller, E. K., 80g:78012**
Popov, M. M. Examples of exactly solvable scattering problems for a parabolic equation of diffraction theory. (Russian. English summary) **80g:78014**
(*with* Pleńčik, I.) Whispering gallery waves in the vicinity of the point of unbending of a concave boundary. (Russian. English summary) **80g:78015**
Popov, O. B. *See* **Il'inskiĭ, A. S., 80g:78008**
Pleńčik, I. *See* **Popov, M. M., 80g:78015**
Rahmat-Samii, Y. *See* **Mittra, Raj, 80k:78026**
Roger, A. (*with* Maystre, D.) The perfectly conducting grating from the point of view of inverse diffraction. **80d:78031**
Ross, G. (*with* Fiddy, M. A.; Nieto-Vesperinas, M.; Manolitsakis, I.) The propagation and encoding of information in the scattered field by complex zeros. **80b:78008**
Sveshnikov, A. G. *See* **Eremin, Ju. A.; et al., 80m:78022**
Tatarskiĭ, V. I. Representation of the solution of some diffraction problems in terms of Gaussian path integrals. (Russian) **80c:78019**
Twersky, Victor Multiple scattering of waves by periodic and by random distributions. **80j:78007**
Walt, James R. Theories of scattering from wire grid and mesh structures. **80j:78008**
Wang, P. K. C. Identification problems in plasma physics. **80a:78023**
Weston, Vaughan H. Electromagnetic inverse problem. **80g:78016**
Nonlinear approach to inverse scattering. **80a:78010**
Wirgin, Armand Sur trois variantes de la théorie de Rayleigh de la diffraction d'une onde par une surface sinusoïdale. (English summary) **80i:78009**
Yasuura, Kanenosuke (*with* Okuno, Yoichi) Algorithm for mode matching method considering edge condition. **80a:78024**
Zabarov, E. V. (*with* Eremin, Ju. A.) A method for solving axially symmetric problems of electromagnetic wave diffraction on axisymmetric bodies. (Russian) **80j:78009**
Zapreev, A. S. The possibility of determining the values of certain functionals of a diffracting object that is situated in a standard magnetic field. (Russian) **80k:78027**

Secondary classifications:

Ahner, John F. (*with* Kahane, Charles S.) A note on an inverse scattering problem. **(80k:35063)**
Belinskiĭ, V. A. (*with* Zaharov, V. E.) Stationary gravitational solitons with axial symmetry. **(80m:83005)**
Bicknell-Johnson, Marjorie *See* **Hoggatt, Verner E., Jr., (80h:10014)**
Candel, Sébastien M. Numerical solution of wave scattering problems in the parabolic approximation. **(80m:76065)**
Colton, David The inverse scattering problem for a cylinder. **(80k:35015)**
Das, Rabindra Nath Exact solution of the equation of radiative transfer for semi-infinite plane-parallel isotropic scattering atmosphere with scattering albedo $\omega_0 < 1$ by a method based on Laplace transform and Wiener-Hopf technique. **(80i:85005)**
Deguchi, Kisaburo Electron scattering from atoms within a laser field: Green's function method. **(80j:81094)**
DeSanto, J. A. Theory of scattering from multilayered bodies of arbitrary shape. **(80m:73071)**
Fymat, Alain L. A generalization of Cooke's integral inversion formula with application to remote-sensing theory. **(80b:65152)**
Grigor'eva, N. S. Short-wave asymptotics of the Green function for an interval. (Russian) **(80d:35028)**
Hoggatt, Verner E., Jr. (*with* Bicknell-Johnson, Marjorie) Reflections across two and three glass plates. **(80h:10014)**
Israilov, M. Š. Exact solutions of problems of wave diffraction on two parallel half-planes. (Russian) **(80f:73034)**
Jakovlev, V. V. *See* **Selezov, I. T., (80e:76042)**
Kahane, Charles S. *See* **Ahner, John F., (80k:35063)**
Kapouleas, George M. Diffraction of Kelvin waves from a rotating channel with an infinite and a semi-infinite barrier. **(80c:76005)**
Krueger, Robert J. An inverse problem for an absorbing medium with multiple discontinuities. **(80b:35142)**
Peterson, Bo Å. (*with* Varadan, Vasundara V.; Varadan, Vijay K.) Scattering of acoustic waves by elastic and viscoelastic obstacles immersed in a fluid. **(80m:73022)**
Selezov, I. T. (*with* Jakovlev, V. V.) ★Дифракция волн на симметричных неоднородностях. (Russian) [Wave diffraction by symmetric nonhomogeneities] **(80e:76042)**
Simon, Barry Phase space analysis of simple scattering systems: extensions of some work of Enss. **(80j:35081)**
Sulkevič, T. A. Calculation of strong anisotropy of scattering in problems of radiation propagation with a unidirectional source. (Russian) **(80k:86010)**
Varadan, Vasundara V. *See* **Peterson, Bo Å.; et al., (80m:73022)**
Varadan, Vijay K. *See* **Peterson, Bo Å.; et al., (80m:73022)**
Wolfe, Peter Diffraction of a plane wave by a circular disk. **(80f:35039)**
Zaharov, V. E. *See* **Belinskiĭ, V. A., (80m:83005)**

78A50 Antennas, wave-guides

Angell, T. S. (*with* Kleinman, Ralph E.) Optimally directed antennas. **80k:78028**
Borovikov, V. A. Fields in smoothly irregular waveguides and the problem of the variation of the adiabatic invariant. (Russian. English summary) **80c:78020**
Fields in narrowing multimode wave guides and eigenfunctions of open resonators. (Russian. English summary) **80f:78007**
Čumačenko, V. P. Application of the method of integral equations for the solution of a class of problems of electrodynamics. (Russian. English summary) **80c:78021**
Fesenko, S. Ju. *See* **Galjuk, Ju. P.; et al., 80g:78017**
Fikioris, John G. *See* **Kanellopoulos, John D., 80h:78011**
Galjuk, Ju. P. (*with* Gjunninen, È. M.; Fesenko, S. Ju.) The behavior of confluent roots of a characteristic equation in the problem of radio wave propagation in a plane waveguide. (Russian) **80g:78017**
Gjunninen, È. M. *See* **Galjuk, Ju. P.; et al., 80g:78017**
Guiraud, Jean-Louis Propagation et rayonnement du champ électro magnétique d'une antenne à structure plane active. (English summary) **80k:78029**
Hou, Yun Li *See* **Mittra, Raj; et al., 80m:78026**
Jamnejad, Vahraz *See* **Mittra, Raj; et al., 80m:78026**
Kanellopoulos, John D. (*with* Fikioris, John G.) Resonant frequencies in an electromagnetic eccentric spherical cavity. **80h:78011**
Kirilenko, A. A. A method of semi-inversion in the problem of linear waveguide transition. (Russian) **80m:78024**
Kleinman, Ralph E. *See* **Angell, T. S., 80k:78028**
Méritet, Alain Méthode d'optimisation visant à déterminer la forme d'antenne filaire ayant un gain maximal. (English summary) **80m:78025**
Mittra, Raj (*with* Hou, Yun Li; Jamnejad, Vahraz) Analysis of open dielectric waveguides using mode-matching technique and variational methods. **80m:78026**
Molotkov, I. A. (*with* Starkov, A. S.) Local degeneration of waves in a thin waveguide. (Russian. English summary) **80g:78018**
Moĭnskiĭ, A. V. Construction of a scalar Green function for a rectangular waveguide by means of Mathieu functions. (Russian) **80h:78012**
Popovkin, V. I. Tihonov's regularization method and the theory of antenna synthesis. (Russian) **80c:78022**
Šestopalov, Ju. V. The justification of a method for calculating normal waves in microstrip devices. (Russian) **80d:78032**
Starkov, A. S. *See* **Molotkov, I. A., 80g:78018**

Secondary classifications:

Fihmanas, R. F. (*with* Fridberg, P. Š.) Analytic properties of Hankel transforms and their use in numerical realizations of variational principles. **(80m:65089)**
Fridberg, P. Š. *See* **Fihmanas, R. F., (80m:65089)**
Gaillot, Jean-Claude (*with* Wilcox, Calvin H.) Steady-state wave propagation in simple and compound acoustic waveguides. **(80c:35023)**
Lyford, William C. Spectral analysis of the Laplacian in distorted periodic waveguides. **(80f:35091)**

Tutubalin, V. N. A new form of the law of large numbers. (Russian. English summary) **(80c:60076)**
Wilcox, Calvin H. *See* **Guillot, Jean-Claude.** **(80c:35023)**

78A55 Technical applications

Březina, Karel Complex mutual inductance. **80k:78030**
Galas, V. P. Regulation effect in resilient symmetric hyperbolic systems. (Russian. English summary) **80k:78031**
Hayashi, Muneaki *See* **Kakimoto, Naoto; et al., 80g:78019**
Jarčuk, S. V. A mathematical model of electrical destruction of conductors. (Russian) **80a:78025**
Kakimoto, Naoto (*with* Ohsawa, Yasuharu; Hayashi, Muneaki) Construction of Lur'e type Lyapunov function with effect of magnetic flux decay. **80g:78019**
Lu, Sheng Dong *See* **Su, Ding Qiang; et al., 80k:78033**
Martuzāns, B. (*with* Pol'skiĭ, B. S.) Numerical solution of one-dimensional steady-state problems of the theory of semiconductor devices. (Russian) **80c:78023**
Mokin, Ju. I. Conditions for the convergence of the method of macroparticles and the method of flow tubes. (Russian) **80b:78009**
Ohsawa, Yasuharu *See* **Kakimoto, Naoto; et al., 80g:78019**
Pol'skiĭ, B. S. *See* **Martuzāns, B., 80c:78023**
Renardy, M. Hopf-Bifurkation bei Lasern. (English summary) **80k:78032**
Su, Ding Qiang (*with* Wang, Ya Nan; Zhou, Bi Fang; Lu, Sheng Dong) An algorithm for finding the extreme values of a function of many variables and its application in the automatic design of astronomical optical systems. **80k:78033**
Tkačenko, V. O. The stability of spiral magnetohydrodynamic oscillations of a plasma of finite conductivity. (Russian) **80c:78024**
Wang, Ya Nan *See* **Su, Ding Qiang; et al., 80k:78033**
Zhou, Bi Fang *See* **Su, Ding Qiang; et al., 80k:78033**

Secondary classifications:

Casperson, Lee W. Stability criteria for high-intensity lasers. **(80m:81124)**
Saleh, Bahaa E. A. Optical bilinear transformations: general properties. (German summary) **(80k:78005)**

78A57 Mathematically heuristic optics and electromagnetic theory (must also be assigned at least one other classification number in this section)

Bloom, Frederick Stability and growth estimates for electric fields in non-conducting material dielectrics. **80d:78033**

78A99 Miscellaneous topics

Čelnokov, V. A. *See* **Zverev, A. E., 80d:78036**
DeRaad, Lester L., Jr. *See* **Milton, Kimball A.; et al., 80c:78025**
Ėidman, V. Ja. Instability of quasistatic oscillations of the potential of a thin conductor with plasma flowing around it. (Russian. English summary) **80f:78008**
Kljočkin, V. I. Stochastic wave parametric resonance (wave intensity fluctuations inside a one-dimensional randomly inhomogeneous medium). (Russian. English summary) **80d:78034**
Konoval'cev, I. V. *See* **Zverev, A. E., 80d:78035**
Milton, Kimball A. (*with* DeRaad, Lester L., Jr.; Schwinger, Julian) Casimir self-stress on a perfectly conducting spherical shell. **80c:78025**
Saičev, A. I. The possibility of the use of the apparatus of Kolmogorov-Feller equations for statistical analysis of systems subject to Poisson processes with symmetric pulses. (Russian) **80i:78010**
Schwinger, Julian *See* **Milton, Kimball A.; et al., 80c:78025**
Smelov, V. V. Single-valued formation of conditions on interior and exterior boundaries of the domain in the odd P_{2N+1} approximation of the method of spherical harmonics. (Russian) **80b:78010**
Zverev, A. E. (*with* Konoval'cev, I. V.) Application of regularization methods for the solution of problems of synthesis of photoelectric transformers. (Russian) **80d:78035**
(*with* Čelnokov, V. A.) The use of the multiparameter regularization method for the solution of the problem of synthesis of the displacement of a two-layer capacitance transformer. (Russian) **80d:78036**

Secondary classifications:

Bressan, Aldo ★Relativistic theories of materials. **(80d:83050)**
Dobrohotov, S. Ju. (*with* Maslov, V. I.) Asymptotic behavior of a spectral boundary value problem for a nonlinear equation for a semi-conductor. (Russian) **(80d:35121)**
Dutta, Niloy K. Two-photon resonant four-wave mixing with nonmonochromatic waves. **(80k:81203)**
Gordov, E. P. (*with* Tvorogov, S. D.) ★Квантовая теория распространения электромагнитного поля. (Russian) [The quantum theory of the propagation of an electromagnetic field] **(80b:81119)**
Hasler, Martin On a quantum-mechanical model for a maser. II. **(80c:82024)**
Liu, Sheng Gang The kinetic theory of electron cyclotron resonance maser. **(80b:82042)**
Maslov, V. I. *See* **Dobrohotov, S. Ju., (80d:35121)**
Rideau, G. Quantization of the Maxwell field and extensions of zero mass representations of Poincaré group. **(80c:81045)**
Surdin, M. Stochastic electrodynamics. **(80m:82059)**
Tvorogov, S. D. *See* **Gordov, E. P., (80b:81119)**

80–XX CLASSICAL THERMODYNAMICS, HEAT TRANSFER

{For thermodynamics of solids, see 73B30.}

80–01 Elementary exposition, textbooks

Tejerina, A. F. (*with* Zaragoza, C.) Systematic development of thermodynamics. (Spanish. English summary) **80f:80001**
Zaragoza, C. *See* **Tejerina, A. F., 80f:80001**

Secondary classifications:

Landsberg, Peter T. ★Thermodynamics and statistical mechanics. **(80k:82001)**

80–02 Advanced exposition (research surveys, monographs, etc.)

Truesdell, C. Some challenges offered to analysis by rational thermomechanics. **80c:80001**

80–03 Historical (must also be assigned at least one classification number from Section 01)

Secondary classifications:

(Joule, James Prescott) *See* **Steffens, Henry John, (80f:01016)**
(Rankine, William John Macquorn) *See* **Umenaga, Kaoru, (80f:01017)**
Steffens, Henry John ★James Prescott Joule and the concept of energy. **(80f:01016)**
Strnad, Janez A hundred years of Stefan's law. (Slovenian. English summary) **(80c:01016)**
Truesdell, C. Absolute temperatures as a consequence of Carnot's general axiom. **(80m:80001)**
Umenaga, Kaoru Rankine's contribution to thermodynamics. **(80f:01017)**

80–04 Explicit machine computation and programs (not the theory of computation or programming)

Dendy, Joel E., Jr. (*with* Swartz, Blair; Wendroff, Burton) Computing travelling wave solutions of a nonlinear heat equation. **80a:80001**
Swartz, Blair *See* **Dendy, Joel E., Jr.; et al., 80a:80001**
Wendroff, Burton *See* **Dendy, Joel E., Jr.; et al., 80a:80001**

80–05 Experimental papers

80–06 Proceedings, conferences, etc.

80A05 Foundations

Biot, M. A. New variational-Lagrangian thermodynamics of viscous fluid mixtures with thermomolecular diffusion. **80k:80001**
Bowers, R. G. An axiomatic thermodynamics of open systems. **80d:80001**
Coleman, Bernard D. On the thermodynamics of nonclassical systems. **80k:80001**
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Fliĕr, I. Z. (*with* Lesnikov, V. P.) Nonequilibrium thermally-induced flow fluctuations. **80f:80002**
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Kolesničenko, A. V. Calculation of the kinetic energy of diffusion in the case of thermodynamic modeling of multicomponent continua. (Russian) **80a:80002**
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Massa, Enrico (*with* Morro, Angelo) A dynamical approach to relativistic continuum thermodynamics. (French summary) **80c:80001**
Morro, Angelo *See* **Massa, Enrico, 80c:80001**
Serrin, James The concepts of thermodynamics. **80g:80002**
Truesdell, C. Absolute temperatures as a consequence of Carnot's general axiom. **80m:80001**
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Hagston, W. E. *See* **Holmes, B. J., (80d:82012)**
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Zhou, Guo Cheng (*with* Jiang, Shou Ping; Liu, Wei Min; Fei, Zhi Hao) Graph theory of enzyme kinetics. I. Steady-state reaction systems. **(80c:92007)**

80A10 Classical thermodynamics

Basano, L. Geometrical analogy for the formal definition of entropy. **80k:80001**
Casimir, H. B. G. Nernst's theorem. **80d:80004**
Curzon, A. E. (*with* Leff, Harvey S.) Resolution of an entropy maximization controversy. **80f:80002**
Cyranski, John F. Analysis of the maximum entropy principle "debate". **80k:80002**
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Dogotar', V. N. (*with* Lenjuk, M. P.) General temperature fields in solid symmetric homogeneous bodies. (Russian. English summary) **80f:80003**
Duan, J. Ernest (*with* Fosdick, Roger L.) Lemmas in thermodynamic stability: a priori

constitutive inequalities and induced global bounds on thermodynamic states. **80e:80004**

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Havas, Peter (*with* Swenson, Robert J.) Relativistic thermodynamics of fluids. I. **80h:80003**

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80A15 Thermodynamics of mixtures

Bedford, Anthony *See* **Drumheller, Douglas S., 80b:80005**

Bowen, Ray M. A theory of constrained mixtures with multiple temperatures. **80k:80003**

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80A20 Heat and mass transfer

Aizenman, Michael (*with* Bak, Thor A.) Convergence to equilibrium in a system of reacting polymers. **80d:80008**

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Dorodnicyn, V. A. Group properties and invariant solutions of an equation of nonlinear heat transport with a source or a sink. (Russian. English summary) **80e:80004**

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Gröger, Konrad (*with* Schleiff, M.) Bestimmung der Temperaturverteilung in einem stromdurchflossenen Körper. (English and Russian summaries) **80d:80010**

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(Korsunskiĭ, V. M.) *See* **Physico-technological questions in cybernetics, 80j:80004a**

Kozmanov, M. Ju. *See* **Dunskina, G. V., 80g:80003**

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Morikawa, Kichiro *See* **Kawashimo, Kensuke, 80m:80004**

Nikolaĭšvili, Š. S. *See* **Grigorovič, G. A., 80d:80009**

Nogi, Tatsuo A mathematical model of spherical nucleus in the undercooling state of metal. **80h:80004**

Nogotov, E. F. ★Applications of numerical heat transfer. **80e:80006**

Nunziato, Jace W. (*with* Walsh, Edward K.) A thermodynamic theory for the effects of localized heating in granular materials. (German summary) **80j:80003**

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Repin, V. B. Heat exchange of a cylinder in a complex sonic field. (Russian) **80k:80007**

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Sayegh, N. N. (*with* Gauvin, W. H.) Numerical analysis of variable property heat transfer to a single sphere in high temperature surroundings. **80d:80013**

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Singh, Namprasad *H*-function of two variables and temperature in an inhomogeneous bar. (Hindi. English summary) **80e:80007**

Singh, Punyatma (*with* Srivastava, K. K.) Variational solution of heat convection in the channel flow with the help of GPDP. **80c:80008**

(*with* Sharma, V. P.; Misra, U. N.) Exact solution of transient heat transfer between a fluid and a porous plate. **80m:80011**

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Soppa, M. S. The existence of a multicomponent thermal boundary layer in the case of a general matrix of diffusion. (Russian) **80f:80007**

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Surinov, Ju. A. An iterative-zonal method of investigation and computation of radiant heat transfer in an absorbing and scattering medium. (Russian) **80a:80007**

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Zur numerischen Lösung eindimensionaler Wärmeleitprobleme mit nichtlinearen Randbedingungen durch Differenzenmethoden. **80d:80014b**

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Cybernetics *See* **Physico-technological questions in cybernetics, 80j:80004a**

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Amosov, A. A. The limit connection between two problems of radiation heat transfer. (Russian) **(80b:35058)**

Berger, Alan E. *See* **Rogers, Joel C.; et al., (80f:65136)**

Callierie, Denis Équations aux dérivées partielles à coefficients périodiques dans des domaines cylindriques aplatis. (English summary) **(80m:35009)**

Ciment, Melvyn *See* **Rogers, Joel C.; et al., (80f:65136)**

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Ding, Li Ming *See* **Tan, Wei Han; et al., (80b:82030)**

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Fulton, Charles T. (*with* Pruess, Steven A.) Numerical methods for a singular eigenvalue problem with eigenparameter in the boundary conditions. **(80k:65071)**

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80A25 Combustion, interior ballistics

Gorobovskiĭ, V. I. Variational methods in the dynamics of a thermal plasma. (Russian) **80k:80009**

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80A30 Chemical kinetics

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Glazunov, Ju. T. Variational solutions of interconnected heat and mass transfer problems. (Russian. English summary) **80d:80021**

Grossmann, S. *See* **Schranner, R.; et al., 80m:80014**

Haubold, H. J. (*with* John, R. W.) On resonant thermonuclear reaction rate integrals—closed-form evaluation and approximation considerations. (Russian summary) **80g:80009**

Hill, Terrell L. (*with* Chen, Yi Der) Interacting enzyme systems at steady state: location of the phase transition in approximations of the mean field type. **80e:80008**

Ishida, K. A stochastic approach to nonequilibrium thermodynamics of chemical reaction system. **80b:81004**

Ivanov, C. I. A quantum-statistical theory of chemical kinetics. **80d:80022**

Jablonskiĭ, G. S. *See* **Evstigneev, V. A.; et al., 80g:80008**

Jhon, Myung S. (*with* Dahler, John S.) A mode-mode coupling theory of chemical reaction in a dense fluid. **80b:80009**

John, R. W. *See* **Haubold, H. J., 80g:80009**

Kapila, A. K. (*with* Matkowsky, Bernard J.) Reactive-diffuse systems with Arrhenius

Plesser, Theodor *See* Erle, Dieter; et al., (80h:92002)
Sant, Jean-Claude ★Sur des généralisations de l'équation de Korteweg-de Vries. (80e:35107)
Seelig, F. F. *See* Deuzel, B., (80e:65163)
Seppa, M. S. Boundary value problems for equations of a multicomponent boundary layer with a general diffusion matrix. (Russian) (80e:76036)
Velarde, M. G. *See* Bonilla, L. L., (80e:35010)
Waller, Derek A. Covering projections of chemical reaction graphs. (80e:05175)

80A35 Mathematically heuristic classical thermodynamics (must also be assigned at least one other classification number in this section)

Agmon, N. *See* Alhassid, Y.; et al., 80a:80011
Alhassid, Y. (*with* Agmon, N.; Levine, Raphael D.) An upper bound for the entropy and its applications to the maximal entropy problem. 80a:80011
Fox, Ronald Forrest Irreversible processes at nonequilibrium steady states. 80d:80023
Levine, Raphael D. *See* Alhassid, Y.; et al., 80a:80011
Malek-Mansour, M. Sur la description stochastique des systèmes de non-équilibre. (English summary) 80c:80015

80A99 Miscellaneous topics

Basili, C. *See* Etim, E., 80a:80012
Borovkov, I. S. Principle of minimum entropy production. 80b:80013
Etim, E. (*with* Basili, C.) On the contact transformations of nonequilibrium thermodynamic Hamiltonian. 80a:80012
Görtz, R. An inequality for the deterministic motion of macrovariables. 80m:80016
Lenjuk, M. P. (*with* Seredjuk, Z. L.) General temperature fields in continuous parachute bodies. (Russian. English summary) 80d:80024
Peterson, Mark A. Analogy between thermodynamics and mechanics. 80b:80014
Plűn, E. On the De Donder-Meixner transformations in nonequilibrium thermodynamics. 80k:80012
Politjukov, V. P. A method of solving boundary value problems for nonlinear transport equations. (Russian) 80j:80008
Sampalo, R. (*with* Williams, W. O.) Thermodynamics of diffusing mixtures. (French summary) 80b:80015
Schlögl, F. Information measures and thermodynamic criteria of motion. 80m:80017
Seredjuk, Z. L. *See* Lenjuk, M. P., 80d:80024
Williams, W. O. *See* Sampalo, R., 80b:80015

Secondary classifications:

Carlson, Donald E. On some new results in dimensional analysis. (80c:73001)
Hadryś, Henryk (*with* Mejbaum, Wacław) Basic properties of the dimensional modulus. (Russian summary) (80c:73002)
Mazur, P. *See* Sokolowski, L. M., (80m:83035)
Mejbaum, Wacław *See* Hadryś, Henryk, (80c:73002)
Pao, C. V. An iterative method for solving a nonstationary radiation diffusion system. (German summary) (80k:65107)
Sokolowski, L. M. (*with* Mazur, P.) Second-order phase transitions in black-hole thermodynamics. (80m:83035)

81-XX QUANTUM MECHANICS

Isaacson, David (*with* Marchesin, Dan) The eigenvalues and eigenfunctions of a spherically symmetric anharmonic oscillator. 80f:81005
Marchesin, Dan *See* Isaacson, David, 80f:81005

81-01 Elementary exposition, textbooks

Landshoff, Peter (*with* Metherell, Allen) ★Simple quantum physics. 80m:81001
Metherell, Allen *See* Landshoff, Peter, 80m:81001
Rennert, P. ★Einführung in die Quantenphysik. 80a:81001

Secondary classifications:

Park, David ★Classical dynamics and its quantum analogues. (80m:70003)

81-02 Advanced exposition (research surveys, monographs, etc.)

(Berestetskiĭ, V. B.) *See* Bjorken, James D.; et al., 80f:81001
Bjorken, James D. (*with* Drell, S. D.) ★Релятивистская квантовая теория. Том. II. Релятивистские квантовые поля. (Russian) [Relativistic quantum theory. Vol. II. Relativistic quantum fields] 80f:81001
Drell, S. D. *See* Bjorken, James D., 80f:81001
(Dremin, I. M.) *See* Sunakawa, Sigenobu, 80i:81001
Gibson, W. M. (*with* Pollard, B. R.) ★Принципы симметрии в физике элементарных частиц. (Russian) [Symmetry principles in elementary particle physics] 80m:81002
(Hoehnke, H.-J.) *See* Zaicev, G. A., 80k:81002
(Ivančik, I. I.) *See* Sunakawa, Sigenobu, 80i:81001
Locher, M. P. (*with* Mizutani, T.) The use of analyticity in nuclear physics. 80c:81001
Malkin, I. A. (*with* Man'ko, V. I.) ★Динамические симметрии и когерентные состояния квантовых систем. (Russian) [Dynamical symmetry and coherent states of quantum systems] 80k:81001
Man'ko, V. I. *See* Malkin, I. A., 80k:81001
Mizutani, T. *See* Locher, M. P., 80c:81001
(Muzeus, L. A.) *See* Gibson, W. M.; et al., 80m:81002
(Narodeckiĭ, I. M.) *See* Bjorken, James D.; et al., 80f:81001
(Perelomov, A. P.) *See* Gibson, W. M.; et al., 80m:81002
Pollard, B. R. *See* Gibson, W. M., 80m:81002
Rayski, Jerzy Survey of physical theories from a methodological viewpoint. 80d:81001

kinetics: multiple solutions, ignition and extinction. 80e:80009
Kapral, Raymond *See* Lebenhaft, Julian R., 80c:80011
Keizer, Joel Thermodynamics at nonequilibrium steady states. 80b:80010
Maxwell-type constructions for multiple nonequilibrium steady states. 80e:80010
Kohler, Werner E. The rapid reaction of two chemical species in the presence of weak random advection and molecular diffusion. 80e:80011
Kostin, M. D. *See* Larson, R. S., 80m:80013
Larson, R. S. (*with* Kostin, M. D.) Friction and velocity in Kramers' theory of chemical kinetics. 80m:80013
Lax, Peter D. Chemical kinetics. 80c:80010
Lebenhaft, Julian R. (*with* Kapral, Raymond) Diffusion-controlled processes among partially absorbing stationary sinks. 80c:80011
Lefever, René Stabilité globale et mécanismes de fluctuations des structures dissipatives. (English summary) 80a:80009
Mangel, Marc Small fluctuations in systems with multiple steady states. 80c:80012
Matkowsky, Bernard J. *See* Kapila, A. K., 80e:80009
Mooney, J. W. Monotone methods for the Thomas-Fermi equation. 80b:80011
Neu, John C. Chemical waves and the diffusive coupling of limit cycle oscillators. 80f:80008
Coupled chemical oscillators. 80f:80009
See also Cohen, Donald S.; et al., 80a:80008
Ng, K. Y. K. A note on the upper and lower solutions of a mass transfer problem with chemical kinetics. 80g:80010
Nipp, K. A formal method for matched asymptotic expansions applied to the Field-Noyes model of the Belousov-Zhabotinskiĭ reaction. 80e:80012
Nourse, James G. (*with* Smith, Dennis H.) Nonnumerical mathematical methods in the problem of stereoisomer generation. 80j:80007
Olson, William H. A Markov chain model for the kinetics of reactant isolation. 80e:80010
Ortoleva, P. *See* DelleDonne, M., 80f:80007
Pechukas, Philip *See* Pollak, Eli; et al., 80k:80010
Pollak, Eli (*with* Child, Mark S.; Pechukas, Philip) Classical transition state theory: a lower bound to the reaction probability. 80k:80010
Ponzo, Peter J. (*with* Wax, Nelson) Note on a model of a biochemical reaction. 80b:80012
Richter, Peter H. *See* Schranner, R.; et al., 80m:80014
Rosales, Rodolfo R. *See* Cohen, Donald S.; et al., 80a:80008
Schranner, R. (*with* Grossmann, S.; Richter, Peter H.) Dynamic correlation functions in the brusselator. 80m:80014
Smith, Dennis H. *See* Nourse, James G., 80j:80007
Sørensen, Jan P. (*with* Stewart, Warren E.) Structural analysis of multicomponent reaction models. I. Systematic editing of kinetic and thermodynamic values. 80k:80011
(*with* Stewart, Warren E.) Structural analysis of multicomponent reaction models. II. Formulation of mass balances and thermodynamic constraints. 80m:80015
Stewart, Warren E. *See* Sørensen, Jan P., 80k:80011 *and* Sørensen, Jan P., 80m:80015
Tachiya, M. General method for calculating the escape probability in diffusion-controlled reactions. 80c:80013
Tao, L. N. The general solution and its analyticity for growth or dissolution of a gas bubble. 80f:80010
Wax, Nelson *See* Ponzo, Peter J., 80b:80012
Wittig, F. E. Solutions of partial differential equations for mean molar functions. 80c:80014

Secondary classifications:

Banks, H. T. (*with* Duban, Marie-Claude; Kernevez, Jean-Pierre) Optimal control of diffusion-reaction systems. (80f:49017)
Bonilla, L. L. (*with* Velarde, M. G.) Singular perturbations approach to the limit cycle and global patterns in a nonlinear diffusion-reaction problem with autocatalysis and saturation law. (80m:35010)
Broomhead, D. S. The self interaction and mutual interaction of limit cycles. The possibility of chaotic behaviour. (80m:70022)
Denzel, B. (*with* Seelig, F. F.) Calculation of separatrices in multistable chemical reaction systems. (80a:65163)
Duban, Marie-Claude *See* Banks, H. T.; et al., (80f:49017)
Ebeling, W. *See* Feistel, R., (80c:82005)
Erle, Dieter (*with* Mayer, Karl Heinz; Plesser, Theodor) The existence of stable limit cycles for enzyme catalyzed reactions with positive feedback. (80h:92002)
Feistel, R. (*with* Ebeling, W.) Stochastic investigations of a limit cycle system: generalized Lotka-Selkov reaction. (80c:82005)
Kafarov, V. V. (*with* Mešalkin, V. P.; Nguen Suan Nguen) Modeling of chemical engineering systems by the method of the compact transformation. (Russian) (80g:93005a)
(*with* Mešalkin, V. P.; Nguen Suan Nguen) An algorithm for modeling chemical engineering systems based on the method of the compact transformation. (Russian) (80g:93005b)
(*with* Mešalkin, V. P.; Nguen Suan Nguen) A method for reflecting free variables of chemical engineering systems based on the compact transformation of matrix informational structure. (Russian) (80g:93005c)
Kernevez, Jean-Pierre *See* Banks, H. T.; et al., (80f:49017)
Mayer, Karl Heinz *See* Erle, Dieter; et al., (80h:92002)
Mešalkin, V. P. *See* Kafarov, V. V.; et al., (80g:93005a); Kafarov, V. V.; et al., (80g:93005b) *and* Kafarov, V. V.; et al., (80g:93005c)
Murray, James Dickson Biological and chemical oscillatory phenomena and their mathematical models. (80a:92027)
Nguen Suan Nguen *See* Kafarov, V. V.; et al., (80g:93005a); Kafarov, V. V.; et al., (80g:93005b) *and* Kafarov, V. V.; et al., (80g:93005c)
Pao, C. V. Bifurcation analysis on a nonlinear diffusion system in reactor dynamics. (80g:82050)

Sternberg, Shlomo On the role of field theories in our physical conception of geometry. **80g:81001**

Sunakawa, Sigenobu ★Квантовая теория рассеяния. (Russian) [The quantum theory of scattering] **80i:81001**

Zakev, G. A. ★Algebraische Probleme der mathematischen und theoretischen Physik. **80k:81002**

Secondary classifications:

Kompaneec, A. S. ★A course of theoretical physics. Vol. 1. **(80h:70002a)**
★A course of theoretical physics. Vol. 2. **(80h:70002b)**
(Talasy, V.) *See* **Kompaneec, A. S., (80h:70002a)** *and* **Kompaneec, A. S., (80h:70002b)**
Thirring, Walter ★Lehrbuch der mathematischen Physik. Band 3. **(80m:81013)**

81–03 Historical (must also be assigned at least one classification number from Section 01)

Cook, L. F. Einstein and $\Delta t/\Delta E$. **80b:81003**
Weisskopf, V. The development of the concept of an elementary particle. **80m:81003**

Secondary classifications:

(Cohen, Robert S.) *See* **Rosenfeld, Léon, (80k:01068)**
Giles, Robin Formal languages and the foundations of physics. **(80g:81006)**
Mackey, George W. Harmonic analysis as the exploitation of symmetry—a historical survey. **(80j:01019)**
(Pierucci, Mariano) *See* **Pignedoli, Antonio, (80b:01023)**
Pignedoli, Antonio Mariano Pierucci, 28 October 1893–19 December 1976. (Italian) **(80b:01023)**
Rosenfeld, Léon ★Selected papers of Léon Rosenfeld. **(80k:01068)**
(Rozental, Stefan) *See* **Rosenfeld, Léon, (80k:01068)**
(Stachel, John J.) *See* **Rosenfeld, Léon, (80k:01068)**
Strnad, Janez Einstein and Planck's law. (Slovenian. English summary) **(80e:01020)**
Yourgrau, W. The enigmatic role of variational principles in theoretical physics. **(80j:49043)**
Bibliography:
Rosenfeld, Léon *See* **Rosenfeld, Léon, (80k:01068)**
Obituary:
Pierucci, Mariano *See* **Pignedoli, Antonio, (80b:01023)**

81–04 Explicit machine computation and programs (not the theory of computation or programming)

81–05 Experimental papers

81–06 Proceedings, conferences, etc.

(Beiglböck, Wolf) *See* **Group theoretical methods in physics, 80i:81002**
(Bishop, Alan R.) *See* **Solitons and condensed matter physics, 80b:81002**
(Böhm, Arno) *See* **Group theoretical methods in physics, 80i:81002**
(Dirac, Paul A. M.) *See* **Current trends in the theory of fields, 80c:81002**
(Fujita, Shigeji) *See* **Festschrift: Wu, Ta You, 80f:81006**
(Hooker, Clifford Alan) *See* **Physical theory as logico-operational structure, 80b:81001**
(Karimäki, Veikko) *See* **Proceedings: Symposium on the Foundations of Modern Physics, 80h:81002**
(Kulli, P. P.) *See* **Questions in quantum field theory and statistical physics, 80e:81001**
(Lannutti, J. E.) *See* **Current trends in the theory of fields, 80c:81002**
(Lerner, D. E.) *See* **Complex manifold techniques in theoretical physics, 80m:81004**
(Popov, V. N.) *See* **Questions in quantum field theory and statistical physics, 80e:81001**
(Rañada, Antonio F.) *See* **Nonlinear problems in theoretical physics, 80f:81002**
(Schneider, Toni) *See* **Solitons and condensed matter physics, 80b:81002**
(Sommers, P. D.) *See* **Complex manifold techniques in theoretical physics, 80m:81004**
(Takasugi, Eiichi) *See* **Group theoretical methods in physics, 80i:81002**
(Vladimirov, V. S.) *See* **Conference: Mathematical Problems of Quantum Field Theory and Quantum Statistics, 80m:81005a** *and* **Conference: Mathematical Problems of Quantum Field Theory and Quantum Statistics, 80m:81005b**
(Williams, P. K.) *See* **Current trends in the theory of fields, 80c:81002**
(Wu, Ta You) *See* **Festschrift: Wu, Ta You, 80f:81006**
Algebraic analysis of quantum field theory ★Algebraic analysis of quantum field theory. (Japanese) **80h:81001**
Austin, Tex. *See* **Group theoretical methods in physics, 80i:81002**
Axiomatic quantum field theory *See* **Conference: Mathematical Problems of Quantum Field Theory and Quantum Statistics, 80m:81005a**
Biography:
Wu, Ta You *See* **Festschrift: Wu, Ta You, 80f:81006**
Colloquium:
Group Theoretical Methods in Physics *See* **Group theoretical methods in physics, 80i:81002**
Group Theory *See* **Group theoretical methods in physics, 80i:81002**
Complex manifold techniques in theoretical physics ★Complex manifold techniques in theoretical physics. **80m:81004**
Condensed matter physics *See* **Solitons and condensed matter physics, 80b:81002**
Conference:
Group Theory and Mathematical Physics *See* **Group theoretical methods in physics, 80i:81002**
Mathematical Problems of Quantum Field Theory and Quantum Statistics
★International Conference on Mathematical Problems of Quantum Field Theory and Quantum Statistics. Part I. Axiomatic quantum field theory. **80m:81005a**
★International Conference on Mathematical Problems of Quantum Field Theory and Quantum Statistics. Part II. Fields and Particles. Mathematical Questions of Quantum Statistics. **80m:81005b**
Current trends in the theory of fields ★Current trends in the theory of fields. **80c:81002**
Elementary particles *See* **Symposium: Mathematical Methods in the Theory of Elementary Particles, 80b:81003a** *and* **Symposium: Mathematical Methods in the Theory of Elementary Particles, 80b:81003b**
Festschrift:
Wu, Ta You ★The Ta-You Wu Festschrift: Science of matter. **80f:81006**
Field theory *See* **Current trends in the theory of fields, 80c:81002**
Fields and particles *See* **Conference: Mathematical Problems of Quantum Field Theory and Quantum Statistics, 80m:81005b**
Group theoretical methods in physics ★Group theoretical methods in physics. **80i:81002**
Holonomic quantum fields *See* **Solitons and holonomic quantum fields, 80f:81003**
Jaca *See* **Nonlinear problems in theoretical physics, 80f:81002**
Kyoto *See* **Solitons and holonomic quantum fields, 80f:81003**
Lawrence, Kan. *See* **Complex manifold techniques in theoretical physics, 80m:81004**
Liblice *See* **Symposium: Mathematical Methods in the Theory of Elementary Particles, 80b:81003a** *and* **Symposium: Mathematical Methods in the Theory of Elementary Particles, 80b:81003b**
Logico-operational structure *See* **Physical theory as logico-operational structure, 80b:81001**
Loma-Koli *See* **Proceedings: Symposium on the Foundations of Modern Physics, 80h:81002**
Mathematical physics *See* **Group theoretical methods in physics, 80i:81002**
Moscow *See* **Conference: Mathematical Problems of Quantum Field Theory and Quantum Statistics, 80m:81005a** *and* **Conference: Mathematical Problems of Quantum Field Theory and Quantum Statistics, 80m:81005b**
Nonlinear problems in theoretical physics ★Nonlinear problems in theoretical physics. **80f:81002**
Nonlinear (soliton) structure *See* **Solitons and condensed matter physics, 80b:81002**
Oxford *See* **Solitons and condensed matter physics, 80b:81002**
Physical theory as logico-operational structure ★Physical theory as logico-operational structure. **80b:81001**
Physics *See* **Proceedings: Symposium on the Foundations of Modern Physics, 80h:81002**
Proceedings:
Symposium on the Foundations of Modern Physics ★Proceedings of the Symposium on the Foundations of Modern Physics. **80h:81002**
Quantum field theory *See* **Questions in quantum field theory and statistical physics, 80e:81001; Algebraic analysis of quantum field theory, 80h:81001; Conference: Mathematical Problems of Quantum Field Theory and Quantum Statistics, 80m:81005a** *and* **Conference: Mathematical Problems of Quantum Field Theory and Quantum Statistics, 80m:81005b**
Quantum statistics *See* **Conference: Mathematical Problems of Quantum Field Theory and Quantum Statistics, 80m:81005a** *and* **Conference: Mathematical Problems of Quantum Field Theory and Quantum Statistics, 80m:81005b**
Questions in quantum field theory and statistical physics ★Вопросы квантовой теории поля и статистической физики. (Russian) [Questions in quantum field theory and statistical physics] **80e:81001**
Science of matter *See* **Festschrift: Wu, Ta You, 80f:81006**
Seminar:
G.I.F.T., Theoretical Physics *See* **Nonlinear problems in theoretical physics, 80f:81002**
Solitons *See* **Special issue: Solitons in physics, 80f:81004**
Solitons and condensed matter physics ★Solitons and condensed matter physics. **80b:81002**
Solitons and holonomic quantum fields ★Solitons and holonomic quantum fields. (Japanese) **80f:81003**
Special issue:
Solitons in physics ★(Special issue on solitons in physics). **80f:81004**
Statistical physics *See* **Questions in quantum field theory and statistical physics, 80e:81001**
Symposium:
Paul A. M. Dirac *See* **Current trends in the theory of fields, 80c:81002**
Algebraic Analysis of Quantum Field Theory *See* **Algebraic analysis of quantum field theory, 80h:81001**
Current Trends in the Theory of Fields *See* **Current trends in the theory of fields, 80c:81002**
Foundations of Modern Physics *See* **Proceedings: Symposium on the Foundations of Modern Physics, 80h:81002**
Mathematical Methods in the Theory of Elementary Particles ★Symposium on Mathematical Methods in the Theory of Elementary Particles. **80b:81003a**
★Symposium on Mathematical Methods in the Theory of Elementary Particles. II. **80b:81003b**
Nonlinear (Soliton) Structure and Dynamics in Condensed Matter *See* **Solitons and condensed matter physics, 80b:81002**
Solitons and Holonomic Quantum Fields *See* **Solitons and holonomic quantum fields, 80f:81003**
Tallahassee, Fla. *See* **Current trends in the theory of fields, 80c:81002**
Theoretical physics *See* **Nonlinear problems in theoretical physics, 80f:81002** *and* **Complex manifold techniques in theoretical physics, 80m:81004**
Trudy Mat. Inst. Steklov. *See* **Conference: Mathematical Problems of Quantum Field Theory and Quantum Statistics, 80m:81005a** *and* **Conference: Mathematical Problems of Quantum Field Theory and Quantum Statistics, 80m:81005b**
Workshop:
Complex Manifold Techniques in Theoretical Physics *See* **Complex manifold techniques in theoretical physics, 80m:81004**

Secondary classifications:

(Baumgärtel, Hellmut) *See* **Proceedings: International Conference on Operator Algebras, Ideals, and their Applications in Theoretical Physics, (80a:47003)**

(Casati, Giulio) *See* Stochastic behavior in classical and quantum Hamiltonian systems, (80h:70004)
(Ford, Joseph) *See* Stochastic behavior in classical and quantum Hamiltonian systems, (80h:70004)
(Fušič, V. I.) *See* Group theoretic methods in mathematical physics, (80d:00010)
(Krée, Paul) *See* Séminaire: Paul Krée, (80j:46001)
(Lassner, Gerd) *See* Proceedings: International Conference on Operator Algebras, Ideals, and their Applications in Theoretical Physics, (80a:47002)
(Mitropol'skiĭ, Ju. O.) *See* Group theoretic methods in mathematical physics, (80d:00010)
(Pietsch, Albrecht) *See* Proceedings: International Conference on Operator Algebras, Ideals, and their Applications in Theoretical Physics, (80a:47002)
(Satz, H.) *See* Many degrees of freedom in particle theory, (80j:81086)
(Uhlmann, A.) *See* Proceedings: International Conference on Operator Algebras, Ideals, and their Applications in Theoretical Physics, (80a:47002)
Algèbres d'opérateurs et leurs applications en physique mathématique ★Algèbres d'opérateurs et leurs applications en physique mathématique. (80k:46001)
Bielefeld *See* Many degrees of freedom in particle theory, (80j:81086)
Colloque:
  Algèbres d'Opérateurs et leur Applications en Physique Mathématique *See* Algèbres d'opérateurs et leurs applications en physique mathématique, (80k:46001)
Colloques Internationaux du Centre National de la Recherche Scientifique *See* Algèbres d'opérateurs et leurs applications en physique mathématique, (80k:46001)
Como *See* Stochastic behavior in classical and quantum Hamiltonian systems, (80h:70004)
Conference:
  Volta Memorial *See* Stochastic behavior in classical and quantum Hamiltonian systems, (80h:70004)
  Operator Algebras, Ideals, and their Applications in Theoretical Physics *See* Proceedings: International Conference on Operator Algebras, Ideals, and their Applications in Theoretical Physics, (80a:47002)
Group theoretic methods in mathematical physics ★Теоретико-групповые методы в математической физике. (Russian) [Group-theoretic methods in mathematical physics] (80d:00010)
Hamiltonian systems *See* Stochastic behavior in classical and quantum Hamiltonian systems, (80h:70004)
Leipzig *See* Proceedings: International Conference on Operator Algebras, Ideals, and their Applications in Theoretical Physics, (80a:47002)
Many degrees of freedom in particle theory ★Many degrees of freedom in particle theory. (80j:81086)
Marseille *See* Algèbres d'opérateurs et leurs applications en physique mathématique, (80k:46001)
Operator algebras *See* Proceedings: International Conference on Operator Algebras, Ideals, and their Applications in Theoretical Physics, (80a:47002) *and* Algèbres d'opérateurs et leurs applications en physique mathématique, (80k:46001)
Partial differential equations *See* Séminaire: Paul Krée, (80j:46001)
Particle physics *See* Many degrees of freedom in particle theory, (80j:81086)
Proceedings:
  International Conference on Operator Algebras, Ideals, and their Applications in Theoretical Physics ★Proceedings of the International Conference on Operator Algebras, Ideals, and their Applications in Theoretical Physics. (80a:47002)
Séminaire:
  Paul Krée ★Séminaire Paul Krée 4e année: 1977–1978. Équations aux dérivées partielles en dimension infinie. (80j:46001)
Stochastic behavior in classical and quantum Hamiltonian systems ★Stochastic behavior in classical and quantum Hamiltonian systems. (80h:70004)
Summer Institute:
  Theoretical Physics *See* Many degrees of freedom in particle theory, (80j:81086)
Theoretical physics *See* Proceedings: International Conference on Operator Algebras, Ideals, and their Applications in Theoretical Physics, (80a:47002)

81Bxx Axiomatics, foundations, philosophy

Secondary classifications:

Čilin, V. I. Continuous valuations on logics. (Russian) (80j:03088)

81B05 General

Akyeampong, D. A. Tensor harmonics in the helicity basis. 80c:81005
Barut, A. O. The borderline between classical physics and quantum theory: towards a theory of the Planck's constant. 80k:81003
Belinfante, F. J. Conventional quantum theory. 80m:81006
Bub, Jeffrey Some reflections on quantum logic and Schrödinger's cat. 80k:81004
Buonomano, V. A limitation on Bell's inequality. 80c:81006
Clarke, C. J. S. A general framework for cosmological quantum theory. 80c:81007
Cufaro Petroni, N. (*with* Vigier, J.-P.) Causal superluminal interpretation of the Einstein-Podolsky-Rosen paradox. 80m:81007
Cyranski, John F. Measurement theory for physics. 80k:81005
Drieschner, Michael ★Voraussage—Wahrscheinlichkeit—Objekt. 80m:81008
Eberhard, P. H. Bell's theorem and the different concepts of locality. (Italian and Russian summaries) 80d:81002
Finkelstein, David (*with* McCollum, Gin) Unified quantum theory. 80c:81008
  The delinearization of physics. 80k:81006
  Holistic methods. 80a:81002
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Bloore, F. J. (*with* Assimakopoulos, M.) A natural one-form for the Schouten concomitant. (80k:58049)
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Davies, E. Brian Information and quantum measurement. (80f:94008)
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Grabowski, Marian A-entropy for generalized observables. **80j:81007**

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An improved formulation of axioms for quantum mechanics. **80f:81011**

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Szymańska-Bartman, Magdalena Orthogonality and orthocomplementation in partially ordered sets. **(80j:06012)**

Zeman, J. Jay Quantum logic with implication. **(80m:03099)**

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ter Haar, D. (*with* Wergeland, H.) How far can radiation from atoms be represented by classical models? **80c:81015**

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A generalization of von Neumann's theorem on irreproducible measurements in the framework of quantum field theory. II. (Russian) **80g:81008b**

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(*with* Butković, Marija; Ljolje, Krunoslav) Constants of motion of the electromagnetic field deduced from the continuity equation and the potential method. (Serbo-Croatian summary) **80a:81009b**

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Christiansen, P. L. (*with* Olsen, O. H.) Ring-shaped quasisoliton solutions to the two- and three-dimensional sine-Gordon equation. **80j:81012**

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Chudnovsky, David V. (*with* Choodnovsky, Gregory V.) Sur les systèmes à plusieurs particules avec potentiel en $1/r^2$, l'équation de Riccati et les systèmes complètement intégrables reliés à l'équation de Schrödinger. **80a:81012**

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Fröman, Nanny Dispersion relation for energy bands and energy gaps derived by the use of a phase-integral method, with an application to the Mathieu equation. **80k:81019**

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Gareev, F. A. *See* **Bang, J., 80b:81017**

Gerdžikov, V. S. (*with* Kulish, P. P.) Derivation of the Bäcklund transformation in the formalism of the inverse scattering problem. (Russian. English summary) **80b:81009**

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Glassey, Robert T. (*with* Strauss, Walter Alexander) Conservation laws for the classical Maxwell-Dirac and Klein-Gordon-Dirac equations. **80b:81024**

Graffi, Sandro (*with* Grecchi, Vincenzo) Resonances in Stark effect and perturbation theory. **80k:81020**

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Ionescu-Pallas, Nicholas (*with* Maurer, J.; Popa, D.; Bârna, Oana) Schrödinger-Pauli wave equation without approximation. (French summary) **80a:81015**

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Kaiser, Gerald Classical limit of Klein-Gordon theory in the coherent-state representation. **80b:81025**

Kaushal, Radhey Shyam Small g and large λ solution of the Schrödinger equation for the interaction $\lambda x^2/(1+gx^2)$. **80f:81020**

Kawata, Tutomu (*with* Kobayashi, Nobuyuki; Inoue, Hiroshi) Soliton solutions of the derivative nonlinear Schrödinger equation. **80b:81026**

(*with* Morishima, Tamotsu; Inoue, Hiroshi) Inverse scattering method for the two-dimensional massive Thirring model. **80j:81014**

Kern, Eberhard Die Pauli-Gleichung mit Differentialoperatoren für den Spin. (English summary) **80a:81017**

Kitazoe, T. (*with* Ishihara, M.; Nakatani, H.) Dirac equation on a lattice. **80c:81018**

Klaus, M. On bound states of the infinite harmonic crystal. **80b:81011**

(*with* Simon, Barry) Binding of Schrödinger particles through conspiracy of potential wells. **80k:81012**

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Bose, S. K. The general anharmonic x^{2q+2} damped oscillator and the coherent state representation. **80f:81033**

Davidson, Mark A generalization of the Fényes-Nelson stochastic model of quantum mechanics. **80j:81023**

Dohrn, Daniela (*with* Guerra, Francesco; Ruggiero, Patrizia) Spinning particles and relativistic particles in the framework of Nelson's stochastic mechanics. **80m:81028**

Dunne, A. *See* **Kinsella, I. A.; et al., 80k:81032**

Dvurečenskij, Anatolij Remark on the laws of large numbers and the central limit theorems on a logic. **80e:81017**

Guerra, Francesco *See* **Dohrn, Daniela; et al., 80m:81028**

Hudson, R. L. The strong Markov property for canonical Wiener processes. **80c:81032**

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Magur-Schächter, Mioara Study of Wigner's theorem on joint probabilities. **80f:81034**

O hAnnaidh, P. B. *See* **Kinsella, I. A.; et al., 80k:81032**

Pulè, J. V. (*with* Verbeure, André) The classical limit of quantum dissipative generators. **80d:81026**

Pulmannová, Sylvia Joint distributions of observables on quantum logics. **80e:81018**

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Srinivas, M. D. Quantum generalization of Kolmogorov entropy. **80a:81030**

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Dubois-Violette, Michel Topics on a noncommutative moment problem. **(80g:46056)**

Palev, Čavdar A causal A-statistics. **(80j:81063)**
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Cicuta, G. M. *See* **Butera, P.; et al., 80m:81030**
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(*with* Maheshwari, Amar; Nelson, Bruce) Path integration in nonrelativistic quantum mechanics. **80k:81039**
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Gross, Eugene P. Applications of path integrals. **80g:81020**
Gutzwiller, Martin C. Path integrals and the relation between classical and quantum mechanics. **80k:81041**
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't Hooft, G. (*with* Veltman, M.) Scalar one-loop integrals. **80b:81021**
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Parker, Leonard Path integrals for a particle in curved space. **80b:81039**
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(Sirugue-Collin, M.) *See* **Feynman path integrals, 80f:81014**
(Stora, R.) *See* **Feynman path integrals, 80f:81014**
Swanson, Mark S. Path integral derivation of the self-consistency condition. **80k:81047**
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Clafaloni, M. Existence of path integral for reggeon quantum mechanics. **(80f:81076)**
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Devreese, Josef T. Path integrals and continuum Fröhlich polarons. **(80e:82032)**
Edwards, S. F. Path integrals and polymer problems. **(80f:82038)**
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Graham, R. Path-integral methods in nonequilibrium thermodynamics and statistics. **(80k:82043)**
Jaffe, Arthur *See* **Glimm, James, (80m:47022)**
Krée, Paul Calcul d'intégrales et de dérivées en dimension infinie. **(80k:46051)**
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Malahov, A. N. *See* Virovljanskiĭ, A. L., (80f:82019)
Mühlschlegel, Bernhard Path integral associated with the Fokker-Planck equation. (80c:82097)
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81C40 General group representations motivated by physics but not covered by Section 81Gxx below; representations of concrete classical groups such as SL(n, C), U(p, q), etc. [See also 20C35, 22E70.]

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Ali, S. Twareque On some representations of the Poincaré group on phase space. 80f:81040
Aliūnskas, S. Methods of realization and correlations of the noncanonical bases of the group $SU_2 \supset SO_2$. (Russian. Lithuanian and English summaries) 80d:81032
Anderson, Ronald (*with* Joshi, G. C.) SU(4) Clebsch-Gordan coefficients for the formation of baryonium and exotic baryons. 80d:81033
Angelopoulos, E. (*with* Flato, Moshé) On unitary implementability of conformal transformations. 80a:81033
Backhouse, Nigel A spectrum generating group for the hydrogen atom and the two-dimensional harmonic oscillator. 80e:81023
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Berezin, A. V. (*with* Boguš, A. A.; Otčik, V. S.; Fedorov, F. I.) Boost matrix elements of unitary representations of the Lorentz group in the base $SO(3.1) \supset SO(2.1) \supset SO(2)$. (Russian) 80g:81022
Berg, B. (*with* Weisz, P.) Exact S-matrix of the adjoint SU(N) representation. 80h:81025
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Mohapatra, R. N. (*with* Sakita, B.) SO(2N) grand unification in an SU(N) basis. 80m:81033
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Sen, R. N. Theory of symmetry in the quantum mechanics of infinite systems. I. The state space and the group action. 80k:81031a
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Arnal, Didier (*with* Cortet, Jean-Claude) Geometrical theory of contractions of groups and representations. **(80j:58034)**
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Samoĭlenko, Ju. S. *See* **Kondrat'ev, Ju. G., (80h:46060)**

Sapogin, L. G. On unitary quantum mechanics. (Italian and Russian summaries) **(80k:81136)**

Satsuma, J. (*with* Ablowitz, Mark J.) Two-dimensional lumps in nonlinear dispersive systems. **(80f:35117)**

Shankara, T. S. *See* **Majhi, S. N., (80e:05024)**

Simms, D. J. Geometric quantization of symplectic manifolds. **(80k:58053)**

Singer, Isadore *See* **Atiyah, Michael Francis; et al., (80d:53023)**

Šikmarev, I. A. The Cauchy problem for hypoelliptic systems and representation of the interaction. (Russian) **(80i:35051)**

Sparzani, Antonio *See* **Gallone, Franco, (80m:58020)**

Stratonovič, R. L. (*with* Vancjan, A. G.) Asymptotically error-free decoding in pure quantum channels. (Russian) **(80b:94011)**

Taniuti, Tosiya *See* **Kodama, Yuji, (80h:76051)**

Tjøstheim, Dag Multiplicity theory for random fields using quantum mechanical methods. **(80h:60051)**

Tsutsumi, Masayoshi *See* **Fukuda, Isamu, (80d:35127)**

Vancjan, A. G. *See* **Stratonovič, R. L., (80b:94011)**

81Dxx General quantum mechanics

Secondary classifications:

Fröhlich, Jürg The charged sectors of quantum electrodynamics in a framework of local observables. **(80k:81210)**

81D05 Commutation relations

Allcock, G. R. (*with* Hall, S. F.) Constraints, positivity, "obscure" representations and the spin-$\frac{3}{2}$ problem. **80e:81039**

Avron, J. E. (*with* Herbst, I. W.; Simon, Barry) Separation of center of mass in homogeneous magnetic fields. **80a:81050**

Brandt, Richard A. (*with* Ng, Wing Chiu; Yeung, Wai Bong) Finite field equation for asymptotically free ϕ^4 theory. **80b:81057**

Castellani, L. On the invariance of $p_i \to -i\hbar(\partial/\partial x^i)$ under point transformations. (Italian and Russian summaries) **80a:81051**

On canonical transformations and quantization rules. (Italian and Russian summaries) **80d:81048**

Dadaĭjan, K. Ju. (*with* Horužiĭ, S. S.) Simplicity of the quasilocal algebra of the system of canonical anticommutation relations with gauge group. (Russian. English summary) **80c:81047**

Džaparidze, G. Š. (*with* Petrov, V. A.) Deser-Gilbert-Sudarshan representation for functions with an isolated branch in the spectrum. (Russian. English summary) **80f:81050**

Etim, E. Stochastic quantization and the nonrelativistic Markoff field. (Italian and Russian summaries) **80e:81040**

Gorsienkov, V. N. Wigner distribution for systems with cylindrical symmetry. (Russian) **80g:81034**

Hall, S. F. *See* **Allcock, G. R., 80e:81039**

Hartmann, H. *See* **Ulmer, W., 80c:81050**

Herbst, I. W. *See* **Avron, J. E.; et al., 80a:81050**

Horužiĭ, S. S. *See* **Dadaĭjan, K. Ju., 80c:81047**

Jha, Dhirendra Kumar A general commutator equation in the algebra of spin operators. **80c:81048**

Kamefuchi, S. *See* **Omote, M., 80i:81023**

Maksimov, S. I. Self-similar behavior of inclusive formfactors with respect to a generalized scaling variable. (Russian. English summary) **80b:81058**

Moore, Steven M. $\bullet$-algebras of unbounded operators in statistical mechanics. **80c:81049**

Ng, Wing Chiu *See* **Brandt, Richard A.; et al., 80b:81057**

Omote, M. (*with* Kamefuchi, S.) Para-Grassmann algebras and para-Fermi systems. **80i:81023**

Palev, Čavdar Lie algebraic aspects of quantum statistics. Para-Fermi statistics. **80f:81051**

Lie-superalgebraical approach to the second quantization. **80k:81061**

Petrov, V. A. *See* **Džaparidze, G. Š., 80f:81050**

Pogosjan, G. S. (*with* Ter-Antonjan, V. M.) Connection between Cartesian and polar wave functions of a nonrelativistic charged particle in a homogeneous magnetic field. (Russian. English summary) **80f:81052**

Ruegg, H. Octonionic quark confinement. **80d:81049**

Simon, Barry *See* **Avron, J. E.; et al., 80a:81050**

Ter-Antonjan, V. M. *See* **Pogosjan, G. S., 80f:81052**

Ulmer, W. (*with* Hartmann, H.) On a geometric interpretation of Heisenberg's commutation rule and the algebraic structure of the Pauli equation. (Italian and Russian summaries) **80c:81050**

Valuev, B. N. Realization of an integral in anticommuting variables. (Russian. English summary) **80f:81053**

Viazminsky, Cesar *See* **Wan, Kay Kong, 80b:81038**

Wan, Kay Kong (*with* Viazminsky, Cesar) Lie algebra and the quantisation of momenta and the Hamiltonian. **80b:81038**

Yeung, Wai Bong *See* **Brandt, Richard A.; et al., 80b:81057**

Zilno, G. Chirality invariance and "chiral" fields. **80a:81052**

Zlatev, I. S. Phase-space quasi-distributions in quantum mechanics. II. (Russian summary) **80b:81059**

Secondary classifications:

Abu-Sitta, A. M. *See* **Obada, A. S. F.; et al., (80k:81205)**

Chatterji, S. D. Stochastic processes and commutation relationships. **(80b:60053)**

Mahran, M. H. A. *See* **Obada, A. S. F.; et al., (80a:81205)**

Obada, A. S. F. (*with* Abu-Sitta, A. M.; Mahran, M. H. A.) Commutation relations and the moments effects in the theory of quantum optics. (Arabic summary) **(80k:81205)**

Razavy, M. Hamilton's principal function for the Brownian motion of a particle and the Schrödinger-Langevin equation. (French summary) **(80a:82026)**

Šereševskiĭ, I. A. Quantization in cotangent bundles. (Russian) **(80h:58009)**

Širokov, Ju. M. Quantum and classical mechanics in the representation of a phase space. (Russian. English summary) **(80c:81025)**

Veselov, A. P. Hamiltonian formalism for Novikov-Kričever equations on the commutativity of two operators. (Russian) **(80i:58028)**

81D10 Bethe-Salpeter equation

Henley, John R. Relativistic Bethe-Salpeter harmonic oscillator. **80k:81062**

Kim, Y. S. (*with* Noz, Marilyn E.) Lorentz deformation of the Bethe-Salpeter wave function. **80e:81041**

Kowalski, K. L. Connected-kernel multifermion Bethe-Salpeter equations. **80k:81063**

Noz, Marilyn E. *See* **Kim, Y. S., 80e:81041**

Orzalesi, C. A. Bound and rebound states. (Italian and Russian summaries) **80m:81041**

Suttorp, L. G. Numerical solution of the spinor Bethe-Salpeter equation and the Goldstein problem. **80j:81037**

Secondary classifications:

Girotti, H. O. On a covariant approach for the one-soliton sector. (Italian summary) **(80j:81001)**

Glimm, James (*with* Jaffe, Arthur) The resummation of one particle lines. **(80k:81096)**

Jaffe, Arthur *See* **Glimm, James, (80k:81096)**

81D15 Current algebra

Bartel', R. (*with* Robaschik, D.) Existence of the Deser-Hilbert-Sudarshan representation. (Russian. English summary) **80e:81042**

Carey, A. L. (*with* Hurst, C. A.) Applications of an algebraic quantization of the electromagnetic field. **80f:81054**

Costa, G. (*with* D'Anna, M.; Marcolungo, P.) Neutral currents in unified gauge models. (Italian and Russian summaries) **80g:81035**

D'Anna, M. *See* **Costa, G.; et al., 80g:81035**

Hurst, C. A. *See* **Carey, A. L., 80f:81054**

Marcolungo, P. *See* **Costa, G.; et al., 80g:81035**

Ogielski, A. T. Nonlocal conserved currents for two-dimensional chiral theories. **80k:81064**

Pak, Namik K. (*with* Tze, Hsiung Chia) Chiral solitons and current algebra. **80j:81038**

Robaschik, D. *See* Bartel', R., **80e:81042**

Takahashi, Yasushi Point splitting technique and canonical formalism. (Italian and Russian summaries) **80c:81051**

Tze, Hsiung Chia *See* Pak, Namik K., **80j:81038**

v. Westenholz, Cornelius Lois de conservation de Noether et courants topologiques. (English summary) **80c:81052**

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Bratteli, Ola (*with* Herman, Richard H.) Unbounded derivations of C^*-algebras and corresponding dynamics. (**80h:46087**)

Effros, Edward G. Nuclearity and the C^*-algebraic flip. (**80h:46088**)

Herman, Richard H. *See* Bratteli, Ola, (**80h:46087**)

Parsa, Zohreh Topological solitons in physics. (**80b:81078**)

81D20 Broken symmetries

Anghel, Al. (*with* Crişan, M.) Dynamical symmetry breaking due to radiative corrections in the scalar $\lambda\varphi^4+g\varphi^3$-theory. (Romanian summary) **80i:81024**

Balachandran, A. P. (*with* Govindarajan, T. R.; Vijayalakshmi, B.) Particles of half-integral or integral helicity by quantization of a non-relativistic free particle, and related topics. **80c:81053**

Bandelloni, G. (*with* Becchi, C.; Blasi, A.; Collina, R.) Renormalization of models with radiative mass generation. **80d:81050**

Becchi, C. *See* Bandelloni, G.; et al., **80d:81050**

Blasi, A. *See* Bandelloni, G.; et al., **80d:81050**

Collina, R. *See* Bandelloni, G.; et al., **80d:81050**

Crişan, M. *See* Anghel, Al., **80i:81024**

Deshpande, Nilendra G. (*with* Hwa, Rudolph C.; Mannheim, Philip D.) $SU(4)\times U(1)$ gauge theory. II. CP nonconservation. **80d:81051**

Frolov, V. M. *See* Grib, A. A.; et al., **80e:81043**

Fujimoto, Y. Spontaneous breaking of chiral symmetries. (Italian summary) **80c:81054**

Govindarajan, T. R. *See* Balachandran, A. P.; et al., **80c:81053**

Grib, A. A. (*with* Mostepanenko, V. M.; Frolov, V. M.) Spontaneous breakdown of *CP*-symmetry in a nonstationary isotropic metric. (Russian. English summary) **80e:81043**

Harvey, Jeffrey A. Patterns of symmetry breaking in the exceptional groups. **80m:81042**

Hwa, Rudolph C. *See* Deshpande, Nilendra G.; et al., **80d:81051**

Incoul, R. Effective Lagrangian in spontaneously broken gauge theories. **80d:81052**

Julve, J. *See* de Urries, F. J.; et al., **80d:81053**

Konopel'chenko, B. G. Completely integrable equations: dynamical groups and their nonlinear realisations. **80k:81065**

Mannheim, Philip D. *See* Deshpande, Nilendra G.; et al., **80d:81051**

Mohapatra, R. N. (*with* Senjanović, Goran) Are there limits on gauge hierarchies? **80e:81053**

Mostepanenko, V. M. *See* Grib, A. A.; et al., **80e:81043**

Oakes, R. J. (*with* Sorba, P.) Chiral $SU_4\times SU_4$ breaking, axial vector current divergences and kaon PCAC. (Italian and Russian summaries) **80e:81044**

Post, E. J. Time asymmetries in classical and in nonclassical physics. **80k:81066**

Senjanović, Goran *See* Mohapatra, R. N., **80e:81053**

Sorba, P. *See* Oakes, R. J., **80e:81044**

Tiemblo, A. *See* de Urries, F. J.; et al., **80d:81053**

de Urries, F. J. (*with* Julve, J.; Tiemblo, A.) Nonlinear group realizations and Higgs-like mechanism. (Italian and Russian summaries) **80d:81053**

Vijayalakshmi, B. *See* Balachandran, A. P.; et al., **80c:81053**

Weinberg, Steven Gauge hierarchies. **80b:81060**

Yaffe, Laurence G. Quantizing gauge theories: non-classical field configurations, broken symmetries and gauge copies. **80b:81061**

Secondary classifications:

Hagiwara, T. (*with* Ovrut, B.) Effective potential for spontaneously broken gauge theories and gauge hierarchies. (**80m:81098**)

O'Raifeartaigh, Lochlainn Broken gauge and scale invariance. (**80k:81106**)
(*with* Park, Soo Yong; Wali, Kameshwar C.) Magnetic-monopole interactions. (**80m:81052**)

Ovrut, B. *See* Hagiwara, T., (**80m:81098**)

Park, Soo Yong *See* O'Raifeartaigh, Lochlainn; et al., (**80m:81052**)

Slavnov, A. A. Supersymmetric gauge theories and their possible applications to the weak and electromagnetic interactions. (**80c:81120**)

Vidalis, T. Spinor operators of Weiss-Zumino type and their irreducible components. (Italian and Russian summaries) (**80k:81073**)

Wali, Kameshwar C. *See* O'Raifeartaigh, Lochlainn; et al., (**80m:81052**)

81D25 Covariant wave equations

Aragone, C. (*with* Deser, S.) Hamiltonian form for massless higher-spin fermions. **80k:81067**

Baranger, M. (*with* Vénéroni, M.) An adiabatic time-dependent Hartree-Fock theory of collective motion in finite systems. **80a:81054**

Cecchini, R. (*with* Tarlini, M.) Arbitrary-spin particles in an electromagnetic field. (Italian and Russian summaries) **80d:81054**

Deser, S. *See* Aragone, C., **80k:81067**

Fronsdal, Christian (*with* Hata, Hiroyuki) Quantization of massless fields with arbitrary spin. **80k:81068**

Hata, Hiroyuki *See* Fronsdal, Christian, **80k:81068**

Kobayashi, Masanori *See* Takahashi, Yasushi, **80b:81062**

Krylovetskiĭ, A. G. Canonical formalism and relativistic invariance of the Grossmann-Peres model for a classical electron. (Russian) **80c:81055**

Leite Lopes, J. (*with* Spehler, D.) The limit of massive electrodynamics and the two-component photon field theory. **80f:81055**

Lowenstein, J. H. (*with* Speer, E. R.) Existence of conserved currents in the perturbative sine-Gordon and massive Thirring models. **80a:81055**

Mallik, S. Asymmetric systems described by a pair of local covariant wave equations. **80d:81055**

McKeon, Gerry Canonical formulation of the free spin-2 field. (French summary) **80m:81043**

Prugovečki, Eduard Consistent formulation of relativistic dynamics for massive spin-zero particles in external fields. **80a:81056**

Sallhofer, Hans Elementare Herleitung der Dirac-Gleichung. II. (English summary) **80m:81044**

Sannikov, S. S. Equations for fields with complex spin. (Russian. English summary) **80a:81057**

Sokolik, G. A. Geometrical description of fields. (Italian and Russian summaries) **80g:81036**

Speer, E. R. *See* Lowenstein, J. H., **80a:81055**

Spehler, D. *See* Leite Lopes, J., **80f:81055**

Tagirov, È. A. (*with* Todorov, I. T.) A geometric approach to the solution of conformal invariant nonlinear field equations. **80j:81039**

Takabayasi, Takehiko Covariant wave equations of two spinning particles harmonically bound. **80j:81040**

Takahashi, Yasushi (*with* Kobayashi, Masanori) Origin of the Gribov ambiguity. **80b:81062**

Tarlini, M. *See* Cecchini, R., **80d:81054**

Todorov, I. T. *See* Tagirov, È. A., **80j:81039**

Vénéroni, M. *See* Baranger, M., **80a:81054**

Witten, Louis Symmetries of the self-dual SU(2) gauge fields. **80a:81058**

Secondary classifications:

Onufriĭchuk, S. P. The symmetry groups of Majorana equations. (Russian. English summary) (**80g:81076a**)
See also Sokur, L. P., (**80g:81076b**)

Sokur, L. P. (*with* Onufriĭchuk, S. P.) Additional symmetry of the generalized Bargmann-Wigner equation with proper time. (Russian. English summary) (**80g:81076b**)

81D99 None of the above, but in this section

Aharonov, Y. (*with* Au, C. K.) Gauge invariance and pseudoperturbations. **80i:81025a**
(*with* Au, C. K.) Erratum: "Gauge invariance and pseudoperturbations" [Phys. Rev. A (3) **20** (1979), no. 4, 1553–1562]. **80i:81025b**

Au, C. K. *See* Aharonov, Y., **80i:81025a** *and* Aharonov, Y., **80i:81025b**

Barbashov, B. M. (*with* Nesterenko, V. V.) The dynamics of a relativistic string. (Russian) **80b:81063**

Bocchieri, P. (*with* Loinger, A.) Nonexistence of the Aharonov-Bohm effect. (Italian and Russian summaries) **80j:81041**

Bohm, D. (*with* Hiley, B. J.) On the Aharonov-Bohm effect. (Italian and Russian summaries) **80j:81042**

Borgardt, O. O. (*with* Karpenko, D. Ja.) Fourier-Bessel integral transformation and the possibility of a probabilistic interpretation of relativistic quantum mechanics. (Russian. English summary) **80f:81056**

Cetto, A. M. *See* de la Peña Auerbach, Luis, **80a:81061**

Corinaldesi, E. Collective co-ordinate of a quantized field. (Italian and Russian summaries) **80e:81045**

Dewdney, C. *See* Philippidis, C.; et al., **80j:81045**

Eckelt, P. An alternative approach to the semiclassical correspondence relations. **80f:81057**

Efimov, S. P. Transition operator between multipole states and their tensor structure. (Russian. English summary) **80f:81058**

Ermolaev, E. A. Quaternion factorization of the Klein-Fok operator. (Russian. English summary) **80i:81026**

Felderhof, B. U. *See* Meister, T. F., **80k:81070**

Fleming, Gordon N. Dynamical spin spreading of unstable particles in four models. **80f:81059**

Goldhirsch, I. Exact Bose expansion for general spin. **80k:81069**

Grossmann, A. Geometry of real and complex canonical transformations in quantum mechanics. **80a:81059**

Hiley, B. J. *See* Bohm, D., **80j:81042** *and* Philippidis, C.; et al., **80j:81045**

Hodžaev, L. Š. *See* Olimov, A., **80e:81046**

Holevo, A. S. Estimation of shift parameters of a quantum state. **80a:81060**

Horwitz, L. P. (*with* Sigal, I. M.) On a mathematical model for nonstationary physical systems. **80j:81043**

Hwang, Jenn Tai (*with* Rabitz, Herschel) The Green's function method of sensitivity analysis in quantum dynamics. **80b:81064**

Jagannathan, R. (*with* Vasudevan, R.) Representations of a para-Bose algebra using only a single Bose field. **80h:81039a**
(*with* Vasudevan, R.) Erratum: "Representations of a para-Bose algebra using only a single Bose field" [J. Math. Phys. **20** (1979), no. 3, 390–392; MR 80h:81039a]. **80h:81039b**

Jaspers, M. Rotations de Wigner et matrices associées dans le cas de masse imaginaire. (English summary) **80j:81044**

Kamefuchi, S. *See* Omote, M., **80h:81041**

Karpenko, D. Ja. *See* Borgardt, O. O., **80f:81056**

Kleban, Peter Virial theorem and scale transformations. **80i:81027**

Krée, Paul Méthodes fonctorielles en analyse de dimension infinie et holomorphie anticommutative. **80m:81045**

Loinger, A. *See* Bocchieri, P., **80j:81041**

Martínez Alonso, L. On the Noether map. **80k:81040**

Meister, T. F. (*with* Felderhof, B. U.) Frequency-dependent electric and magnetic multipole moments and Siegert's theorem. **80k:81070**

Moshinsky, Marcos (*with* Seligman, T. H.) Ambiguities in canonical transformations of classical systems and the spectra of quantum observables. **80d:81057**

Nenciu, G. On the adiabatic theorem of quantum mechanics. **80k:81071**

Nesterenko, V. V. *See* **Barbashov, B. M., 80b:81063**

Olimov, A. (*with* Hodžaev, L. Š.) Retarded and advanced massive superpropagators for exponential interactions. (Russian) **80e:81046**

Omote, M. (*with* Kamefuchi, S.) On supergroup transformations. (Italian and Russian summaries) **80h:81041**

de la Peña Auerbach, Luis (*with* Cetto, A. M.) Quantum mechanics derived from stochastic electrodynamics. **80a:81061**

Philippidis, C. (*with* Dewdney, C.; Hiley, B. J.) Quantum interference and the quantum potential. (Italian and Russian summaries) **80j:81045**

Pimentel, B. M. (*with* Zimerman, A. H.) A note on the energy moments. **80k:81072**

Rabitz, Herschel *See* **Hwang, Jenn Tai, 80b:81064**

Rashid, M. A. Traces of products of angular momentum operators. **80d:81058**

Roy, S. M. Condition for nonexistence of Aharonov-Bohm effect. **80j:81046**

Schwinger, Julian Multispinor basis of Fermi-Bose transformations. **80g:81037**

Seligman, T. H. *See* **Moshinsky, Marcos, 80d:81057**

Segal, I. M. *See* **Horwitz, L. P., 80j:81043**

Smith, T. B. Semiclassical approximation in the Weyl picture by path summation. **80b:81042**

Sugamoto, Akio Dual transformation in abelian gauge theories. **80b:81065**

Ushakina, N. I. Deep inelastic asymptotics of the Mandelstam graph. (Russian. English summary) **80a:81062**

Vasudevan, R. *See* **Jagannathan, R., 80b:81039a** *and* **Jagannathan, R., 80b:81039b**

Vidalis, T. Spinor operators of Weiss-Zumino type and their irreducible components. (Italian and Russian summaries) **80k:81073**

Williams, David N. New mathematical proof of the uncertainty relation. **80d:81059**

Yang, Chen Ning SU_2 monopole harmonics. **80c:81056**

Zimerman, A. H. *See* **Pimentel, B. M., 80k:81072**

Secondary classifications:

Bars, Itzhak (*with* Günaydin, Murat) Construction of Lie algebras and Lie superalgebras from ternary algebras. **(80m:17002)**

Brickmann, Jürgen Local states in one-dimensional symmetrical quantum systems. **(80k:81183)**

Creutz, Michael Quantum electrodynamics in the temporal gauge. **(80f:81030)**

Delbourgo, R. (*with* Keck, B. W.) On the gauge dependence of spectral functions. **(80k:81209)**

Doria, Francisco Antonio Noncontinuous gauge potentials without magnetic monopoles. **(80c:78005)**

Gilmore, R. Catastrophe time scales and conventions. **(80k:58028)**

Günaydin, Murat *See* **Bars, Itzhak, (80m:17002)**

Keck, B. W. *See* **Delbourgo, R., (80k:81209)**

Malkin, I. A. (*with* Man'ko, V. I.) ★Динамические симметрии и когерентные состояния квантовых систем. (Russian) [Dynamical symmetry and coherent states of quantum systems] **(80k:81001)**

Man'ko, V. I. *See* **Malkin, I. A., (80k:81001)**

Paley, Čavdar Fock-type representation of the Lie superalgebra $A(0, 1)$. **(80m:17003)**

81Exx Quantum field theory

Secondary classifications:

Krée, Paul Méthodes holomorphes et méthodes nucléaires en analyse de dimension infinie et en théorie quantique des champs. **(80g:58012)**

81E05 Axiomatic quantum field theory; operator algebras

de Baere, W. Wightman functions for interacting spinor fields on a lightlike plane. (Italian and Russian summaries) **80j:81047**

Benioff, Paul A note on the Everett interpretation of quantum mechanics. **80a:81063**

Brandt, Richard A. (*with* Neri, Filippo; Zwanziger, Daniel) Lorentz invariance from classical particle paths in quantum field theory of electric and magnetic charge. **80d:81060**

Buchholz, Detlev On the structure of local quantum fields with nontrivial interaction. **80i:81028**

Colombeau, Jean-François (*with* Perrot, B.) Infinite dimensional holomorphic "normal forms" of operators on the Fock spaces of Boson fields and an extension of the concept of Wick product. **80d:81061**

Dadaĭjan, K. Ju. *See* **Horuži, S. S., 80k:81074**

Fainberg, V. Ja. (*with* Solov'ev, M. A.) How can local properties be described in field theories without strict locality? **80c:81057**

Getmanov, B. S. Integrable model of a nonlinear complex scalar field with nontrivial asymptotic behavior of soliton solutions. (Russian. English summary) **80d:81062**

Golo, V. L. (*with* Perelomov, A. M.) A few remarks on chiral theories with sophisticated topology. **80i:81029**

Graf, Wolfgang Differential forms as spinors. **80a:81064**

Guenin, M. Unconventional field theories. **80i:81030**

Hegerfeldt, Gerhard C. Mathematische Aspekte der Quantenfeldtheorie. **80e:81047**

Hodžaev, L. Š. *See* **Olimov, A., 80e:81048** *and* **Olimov, A., 80k:81075**

Horuži, S. S. (*with* Dadaĭjan, K. Ju.) Causal independence of free quantum fields. **80k:81074**

Kadison, Richard V. Product isometries and automorphisms of the CAR algebra. **80i:81031**

Kay, Bernard S. A uniqueness result in the Segal-Weinless approach to linear Bose fields. **80g:81038**

Kobusenko, V. D. Haag-Ruelle scattering theory as the scattering theory in different spaces of states. (Russian. English summary) **80d:81063**

Lassner, Gerd Topologisierung lokaler Observablenalgebren und die Dynamik des Supraleiters. **80h:81043**

Lomsadze, Ju. M. (*with* Sabad, O. P.) Nonlocal quantum field theory in the Bogoljubov axiomatic approach. I. Necessary classes of generalized functions. (Russian. English summary) **80a:81065a**

(*with* Sabad, O. P.) Nonlocal quantum field theory in the Bogoljubov axiomatic approach. II. Global axioms and $\hat{S}$-functional. (Russian. English summary) **80a:81065b**

Minčev, M. C. *See* **Todorov, I. T.; et al., 80f:81061**

Neri, Filippo *See* **Brandt, Richard A.; et al., 80d:81060**

Olimov, A. (*with* Hodžaev, L. Š.) The two-point Wightman function for exponential Lagrangians with massive scalar fields. (Russian. Uzbek summary) **80e:81048**

(*with* Hodžaev, L. Š.) The structure of exponential Lagrangians in localizable quantum field theory. (Russian) **80k:81075**

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Xian, Ding Chang (*with* Guo, Shuo Hong; Li, Hua Zhong) On the problem of dual charge (magnetic monopole) in nonabelian gauge groups. **80h:81062**

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Gervais, Jean-Loup *See* **de Vega, H. J.; et al., (80e:81037a)** *and* **de Vega, H. J.; et al., (80e:81037b)**
Heck, Lydia The algebraic structure of the Thirring model. **(80c:81011)**
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Jain, A. K. *See* **Kulhar, V. S.; et al., 80k:81147**
Karowski, M. *See* **Berg, B.; et al., 80a:81091**
Kato, Toshio On the Cook-Kuroda criterion in scattering theory. **80e:81084**
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Kullí, P. P. Factorization of scattering characteristics and integrals of motion. **80h:81066**
Lagu, A. V. *See* **Menon, V. J., 80b:81094**
Mărculescu, S. (*with* Bányai, L.) Analytic properties of the eikonal approximation in quantum mechanics. (French summary) **80k:81148**
Marinov, A. T. *See* **Ivanov, K. I., 80h:81093**
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Menon, V. J. (*with* Lagu, A. V.) A wave packet description of resonant states in potential scattering theory. **80b:81094**
Moses, Harry E. Jost solutions and Green's functions for the three-dimensional Schrödinger equation. **80h:81067**
Newton, Roger G. New result on the inverse scattering problem in three dimensions. **80e:81085**
Ni, Guang Jiong The Levinson theorem and its generalization in relativistic quantum mechanics. (Chinese) **80g:81065**
Pearson, D. B. *See* **Amrein, Werner O., 80j:81064**
Portinari, João C. An inverse scattering transform for potentials of compact support. **80b:81095**

Rasmussen, W. O. (*with* Salamó, S.) An algebraic approach to Coulomb scattering in N dimensions. **80d:81102**
Richards, D. *See* **Dickinson, A. S., 80f:81092**
Salamó, S. *See* **Rasmussen, W. O., 80d:81102**
Scott, T. Computation of scattering functions in second-order many-body theory. **80m:81069**
Sergent, Pierre (*with* Coudray, Christiane) The inverse problem at fixed energy for finite range complex potentials. **80c:81099**
Širokov, Ju. M. Unified formalism for quantum and classical scattering theory. (Russian. English summary) **80k:81149**
Theis, W. R. *See* **Berg, B.; et al., 80a:81091**
Thun, H. J. *See* **Berg, B.; et al., 80a:81091**
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Trifaj, L. New approach to the solution of the scattering of spinless particles by central potentials. **80m:81070**
Zubarev, A. L. Reformulation of the strong-coupling method on the basis of the Schwinger variational principle. **80d:81103**

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Paveri-Fontana, S. L. *See* **Paiano, G., (80i:81051)**
Pavlov, B. S. A partial scattering matrix, its factorization and analyticity. (Russian) **(80c:47009)**
Pearson, D. B. *See* **Amrein, Werner O., (80i:47010)**
Popov, M. M. Examples of exactly solvable scattering problems for a parabolic equation of diffraction theory. (Russian. English summary) **(80g:78014)**
Sokolov, S. N. Classical analogues of the Moeller operators, of the Pearson example and of the Birmann-Kato invariance principle. (Italian and Russian summaries) **(80i:70016)**

81F10 n-body potential scattering theory

Bakker, B. L. G. (*with* Kondratjuk, L. A.; Terent'ev, M. V.) On the formulation of two- and three-body relativistic equations employing light-front dynamics. **80j:81066**
Bao, Cheng Guang (*with* Zhu, Xi Quan) Effect of the bound state poles on N-body scattering amplitudes. (Chinese. English summary) **80i:81047**
Baumgärtel, Hellmut A decoupling approach to resonances for N-particle quantum scattering systems. **80j:81067**
Beĭl'kin, G. Ja. The separation of two-body Coulomb singularities in a system of four charged particles. (Russian. English summary) **80b:81096**
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Brittin, W. E. *See* **Sakakura, A. Y.; et al., 80a:81093**
Cattapan, G. (*with* Vanzani, V.) Distribution properties of the channel interactions in N-body scattering and applications. (Italian and Russian summaries) **80i:81048**
Dollard, John D. (*with* Friedman, Charles N.) Scattering of a beam of particles by a potential. **80m:81071**
Enss, Volker Two-cluster scattering of N charged particles. **80j:81068**
Friedman, Charles N. *See* **Dollard, John D., 80m:81071**
Girardeau, M. D. *See* **Sakakura, A. Y.; et al., 80a:81093**
Hagedorn, George A. Born series for (2 cluster)→(2 cluster) scattering of two-, three-, and four-particle Schrödinger operators. **80j:81069**
Iorio, Rafael Jose, Jr. On the discrete spectrum of the N-body quantum mechanical Hamiltonian. I. **80c:81100**
Jafaev, D. R. The singular spectrum in a system of three particles. (Russian) **80i:81049**
Kondratjuk, L. A. *See* **Bakker, B. L. G.; et al., 80j:81066**
Merkur'ev, S. P. The structure of the resolvent of the Schrödinger operator for a system of three charged particles. (Russian) **80c:81086**
Integral equations for three-particle systems with Coulomb interaction. **80c:81101**
Integral equations in the quantum scattering problem for a system of three charged particles. (Russian. English summary) **80f:81094**
Osborn, T. A. *See* **Wilk, S. F. J., 80c:81102** *and* **Bollé, D., 80g:81066**
Polivanov, M. C. Many-particle scattering amplitudes. **80e:81087**
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Redish, Edward F. *See* **Polyzou, Wayne N., 80e:81088**
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Wilk, S. F. J. (*with* Osborn, T. A.) The form factor approach to N-body scattering theory. **80c:81102**
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Combes, J. M. Scattering theory in quantum mechanics and asymptotic completeness. **(80a:47016)**
(Dremin, I. M.) *See* **Sunakawa, Sigenobu, (80i:81001)**
(Ivančik, I. I.) *See* **Sunakawa, Sigenobu, (80i:81001)**
Kukulin, V. I. (*with* Neudačin, V. G.; Smirnov, Ju. F.) Interaction of composite particles and the Pauli principle. (Russian. English summary) **(80m:81105)**
Lanz, L. (*with* Lupieri, G.) Dynamics of macro-observables and space-time inhomogeneous Gibbs ensembles. (Italian and Russian summaries) **(80c:81003)**
Lupieri, G. *See* **Lanz, L., (80c:81003)**
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Sunakawa, Sigenobu ★Квантовая теория рассеяния. (Russian) [The quantum theory of scattering] **(80i:81001)**

81F15 S-matrix theory, etc.

Al-Hamis, I. M. *See* **Kerimov, B. K.; et al., 80d:81105**
Band, William (*with* Park, James L.) Some fundamental difficulties with quantum mechanical collision theory. **80f:81095**
Bollé, D. *See* **Osborn, T. A., 80e:81090**
Capra, Fritjof Quark physics without quarks: a review of recent developments in S-matrix theory. **80j:81070**
Čuešov, I. D. Probability structure of a certain class of S-matrix equations in boson theory. (Russian. English summary) **80a:81094**
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Epstein, H. *See* **Eckmann, J.-P., 80k:81150**
Fujisaki, Haruo (*with* Yang, Sung Kil) On the higher rank cylinder kernel. **80j:81071**
On the singular cylinder kernel. **80j:81072**
Gerdt, V. P. Analytical calculation of the invariant curve of the Chew-Low equations. (Russian) **80k:81151**
Haan, Oswald Consequences of crossed channel structure for high energy elastic scattering. **80e:81089**
Iagolnitzer, Daniel ★The S matrix. **80j:81074**
The $u=0$ structure theorem. **80j:81073**
Kerimov, B. K. (*with* Safin, M. Ja.; Al-Hamis, I. M.) A second-order Coulomb correction in the elastic scattering of electrons by nuclei in the shell model. (Russian) **80d:81105**
Klink, William H. A representation of multiparticle scattering operators satisfying unitarity and crossing properties. **80m:81073**
Crossing properties of scattering operators. **80m:81074**
Logunov, A. A. (*with* Medvedev, B. V.; Muzafarov, L. M.; Pavlov, V. P.; Polivanov, M. K.; Suhanov, A. D.) Analytical structure of the amplitude of 3→3 forward scattering. (Russian. English summary) **80i:81050**
Lotze, K.-H. On quantum electrodynamics in an external gravitational field. I. Construction of the S matrix. **80c:81103**
Medvedev, B. V. *See* **Logunov, A. A.; et al., 80i:81050**
Muzafarov, L. M. *See* **Logunov, A. A.; et al., 80i:81050**
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Nikolaev, M. V. (*with* Ol'hovskiĭ, V. S.) Analytical structure of the S-matrix for some classes of potentials. (Russian. English summary) **80f:81097**
O'Carroll, Michael L. Applications of functional analysis to the spectral analysis and scattering of quantum mechanical systems. **80a:81095**
Ol'hovskiĭ, V. S. *See* **Nikolaev, M. V., 80f:81097**
Osborn, T. A. (*with* Bollé, D.) Integral bounds for N-body total cross sections. **80e:81090**
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Paiano, G. (*with* Paveri-Fontana, S. L.) An exact method for the evaluation of the S matrix for the Yukawa potential problem. **80i:81051**
Park, James L. *See* **Band, William, 80f:81095**
Paveri-Fontana, S. L. *See* **Paiano, G., 80i:81051**
Pavlov, V. P. *See* **Logunov, A. A.; et al., 80i:81050**
Polivanov, M. K. *See* **Logunov, A. A.; et al., 80i:81050**
Rasche, G. *See* **Nenciu, G.; et al., 80f:81096**
Safin, M. Ja. *See* **Kerimov, B. K.; et al., 80d:81105**
Simon, Barry *See* **Enss, Volker, 80m:81072**
Sinha, Kalyan Relative scattering and time delay in presence of a uniform electric field. **80g:81068**
Stihi, M. *See* **Nenciu, G.; et al., 80f:81096**
Suhanov, A. D. *See* **Logunov, A. A.; et al., 80i:81050**
Woolcock, W. S. *See* **Nenciu, G.; et al., 80f:81096**
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Zamolodčikov, Aleksander B. Z_4-symmetric factorized S-matrix in two space-time dimensions. **80h:81068**

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Kashiwara, Masaki (*with* Kawai, Takahiro) On the characteristic variety of a holonomic system with regular singularities. **(80k:58089)**
Kawai, Takahiro *See* **Kashiwara, Masaki, (80k:58089)**
Osborn, T. A. *See* **Bollé, D., (80g:81066)**
Vakulenko, A. F. Unitary regularization for Friedrichs model of a many-particle system. (Russian) **(80h:47013)**
Zamolodčikov, Aleksander B. (*with* Zamolodčikov, Alexeĭ B.) Factorized S-matrices in two dimensions as the exact solutions of certain relativistic quantum field theory models. **(80j:81050)**

Zamolodčikov, Alexei B. *See* **Zamolodčikov, Aleksander B., (80j:81050)**

Zinov'ev, Ju. M. Nonunitary representations of $MH(2)$, the $ax+b$ group and the Laplace transform. (Russian. English summary) **(80g:46039)**

81F20 Particle scattering theories

Ablezer, A. I. (*with* Boldyšev, V. F.; Šul'ga, N. F.) The theory of elastic scattering and bremsstrahlung of fast charged particles in crystals. (Russian. English summary) **80d:81107**

Almström, H. Calculation of the S-matrix for the scattering between electrons and atomic ions. (Italian and Russian summaries) **80c:81104**

Arustamjan, A. M. (*with* Vergasov, V. L.; Čuhovskiĭ, F. N.) A study of the solutions of the one-dimensional Schrödinger equation with a potential of Hardy type. S-matrix formalism. (Russian. English summary) **80f:81098**

Auberson, G. (*with* Mennessier, G.) On the optimality of axiomatic constraints for $\pi^0\pi^0$ scattering: the case of the lower bounds. **80m:81075**

Block, M. M. (*with* Jackson, J. D.) Applications of a cluster decomposition of many-dimensional phase space to high-energy collisions. **80k:81153**

Boldyšev, V. F. *See* **Ablezer, A. I.; et al., 80d:81107**

Catalan, Graciela (*with* Roberts, M. J.) The form of electron-atom excitation amplitudes at high momentum transfers in the Faddeev-Watson approximation. **80m:81076**

Čuhovskiĭ, F. N. *See* **Arustamjan, A. M.; et al., 80f:81098**

Dadaev, L. A. (*with* Kuliev, V. Ju.) On the theory of scattering in quantum-field systems. (Russian) **80m:81077**

Dai, Yuan Ben *See* **Zhou, Guang Zhao, 80b:81097**

Davies, E. Brian Two-channel Hamiltonians and the optical model of nuclear scattering. **80c:81105**

Scattering from a spatially restricted atom. I. **80k:81154**

Eremjan, Š. S. (*with* Nazarjan, A. E.) Exact summation of the quasi-eikonal series. **80c:81106**

Fliflet, Arne W. *See* **Levin, Deborah A.; et al., 80c:81107**

Ginibre, Jean (*with* Velo, Giorgio) The classical field limit of scattering theory for nonrelativistic many-boson systems. I. **80h:81069**

(Haftel, Michael I.) *See* **Few body systems and nuclear forces, 80m:81083a** *and* **Few body systems and nuclear forces, 80m:81083b**

Jackson, J. D. *See* **Block, M. M., 80k:81153**

Kuliev, V. Ju. *See* **Dadaev, L. A., 80m:81077**

Levi, A. C. Quantum theory of atom-surface scattering: inelastic scattering. (Italian and Russian summaries) **80m:81078**

Levin, Deborah A. (*with* Fliflet, Arne W.; Ma, Michael; McKay, Vincent) Gaussian matrix elements of the free-particle Green's function. **80c:81107**

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See also **Watson, D. K.; et al., 80m:81081**

Ma, Michael *See* **Levin, Deborah A.; et al., 80c:81107**

McKay, Vincent *See* **Levin, Deborah A.; et al., 80c:81107**

McKoy, Vincent *See* **Lucchese, Robert R., 80m:81079** *and* **Watson, D. K.; et al., 80m:81081**

Mennessier, G. *See* **Auberson, G., 80m:81075**

Nazarjan, A. E. *See* **Eremjan, Š. S., 80c:81106**

Newton, Roger G. A new representation for quantum mechanics. **80f:81099**

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Pavlov, V. P. Theory of generalized retarded operators. (Russian. English summary) **80c:81108**

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Sobeslavsky, E. Vergleich von klassischen und Born-Wirkungsquerschnitten bei Elektronenstössen am H-Atom. (English summary) **80a:81097**

Šul'ga, N. F. *See* **Ablezer, A. I.; et al., 80d:81107**

Suzuki, Takashi Equations of motion in Ehrenfest's theorem for heavy-ion collisions. (Italian summary) **80c:81091**

Tengstrand, Göran *See* **Snellman, Håkan, 80d:81108**

Velo, Giorgio *See* **Ginibre, Jean, 80h:81069**

Vergasov, V. L. *See* **Arustamjan, A. M.; et al., 80f:81098**

Watson, D. K. (*with* Lucchese, Robert R.; McKoy, Vincent; Rescigno, T. N.) Schwinger variational principle for electron-molecule scattering: application to electron-hydrogen scattering. **80m:81081**

van Winter, Clasine A weighted Hilbert space for multiparticle scattering. **80g:81069**

Yajima, Kenji The quasiclassical limit of quantum scattering theory. **80m:81082**

(Zankel, Hubert) *See* **Few body systems and nuclear forces, 80m:81083a** *and* **Few body systems and nuclear forces, 80m:81083b**

Zhou, Guang Zhao (*with* Dai, Yuan Ben) Soliton-soliton scattering and the semi-classical approximation for the problem of scattering in three-dimensional space. **80b:81097**

(Zingl, Harald F. K.) *See* **Few body systems and nuclear forces, 80m:81083a** *and* **Few body systems and nuclear forces, 80m:81083b**

Conference:

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★Few body systems and nuclear forces. II. **80m:81083b**

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Jafaev, D. R. On the theory of multichannel scattering in a pair of spaces. (Russian. English summary) **(80a:47018)**

Kamal, A. N. The Muskhelishvili-Omnès equation and final state interactions. (French summary) **(80f:81083)**

Logunov, A. A. (*with* Mestvirišvili, M. A.; Petrov, V. A.) General principles of quantum field theory and strong interactions at high energies. **(80m:81093)**

Mestvirišvili, M. A. *See* **Logunov, A. A.; et al., (80m:81093)**

Miles, John W. On the evolution of a solitary wave for very weak nonlinearity. **(80c:76008)**

Petrov, V. A. *See* **Logunov, A. A.; et al., (80m:81093)**

Sakmar, I. A. *See* **Chan, S. K., (80c:81029)**

81F30 Dispersion theory, dispersion relations

Lee, Shyh Yuan (*with* Takigawa, N.) A wave propagation matrix method in semiclassical theory. **80c:81109**

Srivastava, Archana (*with* Srivastava, M. K.) Comments on the angle Glauber approximation. **80j:81075**

Srivastava, M. K. *See* **Srivastava, Archana, 80j:81075**

Takigawa, N. *See* **Lee, Shyh Yuan, 80c:81109**

Secondary classifications:

Amrein, Werner O. Algebraic scattering theory. **(80f:47005)**

81F99 None of the above, but in this section

Agre, M. Ja. (*with* Rapoport, L. P.) Variational principles for the scattering problem in the presence of an intensive electromagnetic wave. (Russian. English summary) **80d:81109**

Anni, R. (*with* Renna, L.; Taffara, L.) Unphysical reflection phenomena involved in the numerical calculation of heavy-ion scattering cross-sections. (Italian and Russian summaries) **80k:81155**

Arinštein, A. È. Multi-instanton solutions of the self-duality equations and the inverse scattering problem. **80g:81070**

Caprini, I. Integral equations for the analytic extrapolation of scattering amplitudes with positivity constraints. (Italian and Russian summaries) **80j:81076**

Case, K. M. *See* **Geronimo, J. S., 80f:81100**

Cruz, A. (*with* Sesma, J.) Convergence of the Debye expansion for the S matrix. **80b:81098**

Dahler, John S. *See* **Turner, R. E., 80m:81086**

Das, U. *See* **Talukdar, B., 80h:81070**

Davies, E. Brian (*with* Simon, Barry) Scattering theory for systems with different spatial asymptotics on the left and right. **80c:81110**

Gerdžikov, V. S. (*with* Kulič, P. P.) Completely integrable Hamiltonian systems connected with a nonselfadjoint Dirac operator. (Russian. English summary) **80c:81111**

Geronimo, J. S. (*with* Case, K. M.) Scattering theory and polynomials orthogonal on the unit circle. **80f:81100**

Goloskokov, S. V. (*with* Kudinov, A. V.; Kulelov, S. P.) Preasymptotic effects in hadron-hadron large angle scattering. (Russian. English summary) **80i:81052**

Ichikawa, Yoshi Hiko *See* **Wadati, Miki; et al., 80c:81114**

Il'in, V. A. (*with* Imaĭev, M. S.; Slavnov, D. A.) Causality and regularization. (Russian) **80c:81112**

Imaĭev, M. S. *See* **Il'in, V. A.; et al., 80c:81112**

Kazama, Yoichi Dynamics of electron-monopole system. **80f:81101**

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Morris, Hedley C. Prolongation structures and nonlinear evolution equations in two spatial dimensions: a general class of equations. **80c:81092**

Muzafarov, L. M. Dispersion relation for the forward scattering amplitude $\gamma NN \to \gamma NN$ and a generalized optical theorem. (Russian. English summary) **80d:81110**

Newell, Alan C. Near-integrable systems, nonlinear tunnelling and solitons in slowly changing media. **80e:81093**

Omojola, Akin F. Spin summations in nuclear scattering problems. **80a:81098**

Ore, F. R., Jr. (*with* Sterman, George) An operator approach to weighted cross sections. **80m:81084**

Prugovečki, Eduard A unified treatment of dynamics and scattering in classical and quantum statistical mechanics. **80i:81053**

Rapoport, L. P. *See* **Agre, M. Ja., 80d:81109**

Reed, Michael C. (*with* Simon, Barry) ★Methods of modern mathematical physics. III. **80m:81085**

Renna, L. *See* **Anni, R.; et al., 80k:81155**

Sakmar, I. A. An angle-dependent lower bound on the solution of the elastic unitary integral and a new uniqueness condition resulting from it. **80b:81099**

Sesma, J. *See* **Cruz, A., 80b:81098**

Simon, Barry *See* **Davies, E. Brian, 80c:81110** *and* **Reed, Michael C., 80m:81085**

Skljanin, E. K. The method of the inverse scattering problem and the quantum nonlinear Schrödinger equation. (Russian) **80f:81102**

Slavnov, D. A. *See* **Il'in, V. A.; et al., 80c:81112**

Sobol', I. M. Modeling of Compton scattering by relativistic electrons by the Monte Carlo method. (Russian) **80a:81099**

Sterman, George *See* **Ore, F. R., Jr., 80m:81084**

Stern, M. S. Application of the El-Gendi method to the Schrödinger integral equation. **80d:81111**

Taffara, L. *See* **Anni, R.; et al., 80k:81155**

Talukdar, B. (*with* Das, U.) Combined variable-phase-off-shell scattering theory. **80h:81070**

Teli, M. T. Four general relations between neutrino and antineutrino scattering on any fermion target. **80c:81113**

Thacker, H. B. (*with* Wilkinson, David) Inverse scattering transform as an operator method in quantum field theory. **80i:81054**

Turchetti, G. The variational approach to the linearized inverse problems. **80j:81077**

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Wadati, Miki (*with* Konno, Kimiaki; Ichikawa, Yoshi Hiko) A generalization of inverse scattering method. **80c:81114**

Wilkinson, David *See* **Thacker, H. B., 80i:81054**

Zaharov, V. E. (*with* Mihailov, A. V.) Relativistically invariant two-dimensional models of field theory which are integrable by means of the inverse scattering problem method. **80c:81115**

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Breitenecker, M. (*with* Thirring, Walter) Scattering theory in classical dynamics. **(80h:70021)**

Buchholz, Detlev Quantum field theory of massless particles and scattering theory. **(80g:81039)**

Cornille, Henri An inversionlike integral equation in the multidimensional case. **(80d:45002)**

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Levermore, C. David *See* **Lax, Peter D., (80g:35113)**

Locher, M. P. (*with* Mizutani, T.) The use of analyticity in nuclear physics. **(80c:81001)**

Mizutani, T. *See* **Locher, M. P., (80c:81001)**

Rochus, Pierre Upper bounds for the many-channel Marchenko transformation operator and its derivatives. **(80h:81018)**

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Phase space analysis of simple scattering systems: extensions of some work of Enss. **(80j:35081)**

Skriganov, M. M. Proof of the Bethe-Sommerfeld conjecture in dimension 2. (Russian) **(80k:35053)**

Thirring, Walter *See* **Breitenecker, M., (80h:70021)**

Weissmann, George Particle order: a new fundamental concept in hadron physics. I, II. **(80h:81159)**

81Gxx Particle physics (this covers all kinds of particles and interactions)

81G05 Strong interaction

Achuthan, P. (*with* Chandramohan, T.) Pomeron models and hadrodynamics. **80d:81112**

Belvedere, L. V. (*with* Swieca, J. A.; Rothe, K. D.; Schroer, B.) Generalized two-dimensional abelian gauge theories and confinement. **80e:81094**

Budini, Paolo Quarks as conformal semispinors. **80h:81071**

Chandramohan, T. *See* **Achuthan, P., 80d:81112**

Chaudhuri, A. Roy *See* **Chaudhuri, Kasturi Roy; et al., 80d:81113**

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Domokos, G. (*with* Kövesi-Domokos, S.) Towards an algebraic quantum chromodynamics. **80g:81071**

Dubničková, A. Z. (*with* Efimov, G. V.; Ivanov, M. A.) Nonlocal quark model and meson decays. **80k:81156**

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Garibotti, C. R. (*with* Grinstein, Fernando F.) Summation of partial wave expansions in the scattering by long range potentials. II. Numerical applications. **80a:81100**

Gell-Mann, M. (*with* Ramond, P.; Slansky, R.) Color embeddings, charge assignments, and proton stability in unified gauge theories. **80c:81116**

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Glimm, James (*with* Jaffe, Arthur) Charges, vortices and confinement. **80j:81078**

Gliozzi, F. (*with* Virasoro, M. A.) The interaction among dual strings as a manifestation of the gauge group. **80m:81088**

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Hagen, C. R. Covariance problem in two-dimensional quantum chromodynamics. **80m:81089**

Hill, Christopher T. The dimension-5 Lorentz invariant operator system in QCD. **80k:81072**

Hosoya, Akio WKB-like wave-functional for a string state and path-dependent phase factor. **80m:81090**

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Ivanov, M. A. *See* **Dubničková, A. Z.; et al., 80k:81156**

Jaffe, Arthur *See* **Glimm, James, 80j:81078**

Kodaira, Jiro QCD higher-order effects in polarized electroproduction. **80m:81091**

Kövesi-Domokos, S. *See* **Domokos, G., 80g:81071**

Lee, Shih Chang Quark color algebra in Adler's chromostatics. **80m:81092**

Lee, T. D. Nontopological solitons and applications to hadrons. **80k:81157**

Logunov, A. A. (*with* Mestvirišvili, M. A.; Petrov, V. A.) General principles of quantum field theory and strong interactions at high energies. **80m:81093**

Maksimov, Ju. M. Possible disappearance of quantum-field divergences in the framework of modified quantum dynamics. (Russian) **80g:81072**

Matveev, V. A. (*with* Muradjan, R. M.; Tavhelidze, A. H.) Method of quark counting for inclusive processes. (Russian. English summary) **80i:81055**

McKeon, Gerry Energy of a spin-$\frac{1}{2}$ particle in a constant coloured magnetic field. (French summary) **80f:81103**

Mestvirišvili, M. A. *See* **Logunov, A. A.; et al., 80m:81093**

Meyers, C. (*with* de Roo, M.) New explicit instantons and the geometry of the parameter space. **80d:81115**

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Nappi, Chiara R. *See* **Israel, Robert B., 80d:81114**

Neveu, André *See* **Gervais, Jean-Loup, 80m:81087**

Palmer, William F. (*with* Pinsky, Stephen S.) The effect of instanton–anti-instanton interactions on current correlation functions in massless QCD. **80k:81158**

Petrov, V. A. *See* **Logunov, A. A.; et al., 80m:81093**

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de Roo, M. *See* **Meyers, C., 80d:81115**

Rothe, K. D. *See* **Belvedere, L. V.; et al., 80e:81094**

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Šifman, M. A. (*with* Vaĭnštein, A. I.; Zaharov, V. I.) Instantons in nonperturbative QCD vacuum. **80m:81094**

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Swieca, J. A. *See* **Belvedere, L. V.; et al., 80e:81094**

Tavhelidze, A. H. *See* **Matveev, V. A.; et al., 80i:81055**

Vaĭnštein, A. I. *See* **Šifman, M. A.; et al., 80m:81094**

Virasoro, M. A. *See* **Gliozzi, F., 80m:81088**

Ward, B. F. L. Decoupling of fermions from bosons in the strong-coupling limit of gauge theories. (Italian and Russian summaries) **80c:81117**

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Alvarez, E. (*with* Hakim, R.) Quark era in the primeval universe. **(80k:83051)**

Ambjørn, J. (*with* Nielsen, N. K.; Olesen, P.) A hidden Higgs Lagrangian in QCD. **(80f:81076)**

Budini, Paolo (*with* Furlan, P.; Rączka, Ryszard) Possible origin of isotopic spin from extended conformal symmetry. **(80g:81073)**

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Hakim, R. *See* **Alvarez, E., (80k:83051)**

Halasa, R. *See* **Ram, B., (80k:81021)**

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(*with* Trunov, N. N.) Vacuum averages of the quantum field energy-momentum tensor on manifolds of varying topology and geometry. II. (Russian) **(80m:81065b)**

Menskiĭ, M. B. Application of the group of paths to the gauge theory and quarks. **(80m:81095)**

Ng, Wing Chiu (*with* Yeung, Wai Bong) New procedure for summing perturbation theory. **(80d:81024)**

Nielsen, N. K. *See* **Ambjørn, J.; et al., (80f:81076)**

Olesen, P. *See* **Ambjørn, J.; et al., (80f:81076)**

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Rączka, Ryszard *See* **Budini, Paolo; et al., (80g:81073)**

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Yeung, Wai Bong *See* **Ng, Wing Chiu, (80d:81024)**

81G10 Electromagnetic interaction

Andrianov, A. A. The eikonal approximation from the point of view of the interaction representation. **80c:81118**

Balachandran, A. P. (*with* Marmo, G.; Skagerstam, B. S.; Stern, A.) Magnetic monopoles with no strings. **80k:81160**

Bogomol'nyi, E. B. Large-complex-charge behaviour of the Dirac determinant. **80h:81073**

Helašvili, A. A. Invariance properties of weak interactions and the Cabibbo angle in chiral dynamics. (Russian. English summary) **80i:81057**

Hortaçsu, M. (*with* Rothe, K. D.; Schroer, B.) Generalized two-dimensional QED and functional determinants. **80k:81161**

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Menskiĭ, M. B. Application of the group of paths to the gauge theory and quarks. **80m:81095**

Miglietta, F. Two-component first-order equations for the quantum-relativistic electron. (Italian and Russian summaries) **80f:81104**

Moreau, W. R. A vector perturbation series based upon a representation in a finite Banach space. **80d:81116**
Morris, T. F. Electrodynamics of charged scalar solitons. (French summary) **80m:81096**
Okubo, Susumu Representations and classifications of compact gauge groups for unified weak and electromagnetic interactions. **80c:81119**
Preparata, G. (*with* Szegö, K.) Baryon structure in quark geometrodynamics. (Italian and Russian summaries) **80m:81101**
Rothe, K. D. *See* **Hortaçsu, M.; et al., 80k:81161**
Schroer, B. *See* **Hortaçsu, M.; et al., 80k:81161**
Skagerstam, B. S. *See* **Balachandran, A. P.; et al., 80k:81160**
Stern, A. *See* **Balachandran, A. P.; et al., 80k:81160**
Sud, A. R. *See* **Sud, K. K., 80b:81100**
Sud, K. K. (*with* Sud, A. R.) Asymptotic expansions of radial integrals for Dirac-Coulomb functions. **80b:81100**
Szegö, K. *See* **Preparata, G., 80m:81101**

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Akhoury, Ratindranath (*with* Jun, Jung Hwan; Goldhaber, Alfred S.) Linear deformations of the Prasad-Sommerfield monopole. **(80k:81206)**
Gedalin, È. V. Application of the path integral method to the cascade theory of showers. (Russian. English and Georgian summaries) **(80j:81024)**
Goldhaber, Alfred S. *See* **Akhoury, Ratindranath; et al., (80k:81206)**
Jun, Jung Hwan *See* **Akhoury, Ratindranath; et al., (80k:81206)**
Slavnov, A. A. Supersymmetric gauge theories and their possible applications to the weak and electromagnetic interactions. **(80c:81120)**

81G15 Weak interaction

De Sabbata, V. (*with* Gasperini, M.) Strong gravity and weak interactions. **80j:81080**
Donohue, J. T. *See* **Gottlieb, Steven, 80k:81164**
Fayyazuddin (*with* Riazuddin) Model based on gauge symmetry group $G = G_{wk} \times [SU(3) \times SU(3)]_c$. **80k:81162**
Frampton, Paul Conditions for renormalizability of quantum flavor dynamics. **80k:81163**
Gasperini, M. *See* **De Sabbata, V., 80j:81080**
Goffin, Vincent (*with* Segrè, Gino; Weldon, H. Arthur) Explicit one-loop corrections to the strong CP-violating phase in $SU(2)_L \times U(1)$. **80m:81097**
Gottlieb, Steven (*with* Donohue, J. T.) Axial-vector current and dimensional regularization. **80k:81164**
Hagiwara, T. (*with* Ovrut, B.) Effective potential for spontaneously broken gauge theories and gauge hierarchies. **80m:81098**
Liparteliani, A. G. *See* **Volkov, G. G.; et al., 80b:81101**
Lipmanov, È. M. (*with* Mîheev, N. V.) On the universal mixing of leptons in a gauge theory of weak interactions. **80m:81099**
Mîheev, N. V. *See* **Lipmanov, È. M., 80m:81099**
Nikitin, Ju. P. *See* **Volkov, G. G.; et al., 80b:81101**
Okubo, Susumu Structure of semi-simple gauge groups for unified weak and electromagnetic interactions. **80a:81102**
O'Raifeartaigh, Lochlainn Classical static gauge-field solitons in three space dimensions. **80e:81095**
Ovrut, B. *See* **Hagiwara, T., 80m:81098**
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Segrè, Gino *See* **Goffin, Vincent; et al., 80m:81097**
Slavnov, A. A. Supersymmetric gauge theories and their possible applications to the weak and electromagnetic interactions. **80c:81120**
Taffin, Erik Classical V-A theory and nonconservation of the dynamical parity. **80k:81165**
Volkov, G. G. (*with* Liparteliani, A. G.; Nikitin, Ju. P.) Gauge schemes of weak and electromagnetic interactions. (Russian. English summary) **80b:81101**
Weldon, H. Arthur *See* **Goffin, Vincent; et al., 80m:81097**

Secondary classifications:

Guralnik, M. Unconventional field theories. **(80l:81030)**
Okubo, Susumu Representations and classifications of compact gauge groups for unified weak and electromagnetic interactions. **(80c:81119)**

81G20 Applications of group theory to elementary particles

Agrawala, Vishnu K. Wigner-Eckart theorem for graded generalized Lie algebras. **80k:81166**
Aliauskas, S. The Clebsch-Gordan coefficients of the group SU_3. (Russian. Lithuanian and English summaries) **80b:81102**
Anandan, J. (*with* Roskies, Ralph) Polynomial basis for Yang-Mills invariants. **80d:81117**
Beau, Daniel (*with* Horchani, Salah) A Lie group framework for composite particles and mass spectrum. **80k:81167**
Biedenharn, L. C. *See* **van Dam, H., 80d:81118**
Bjorken, James D. Neutral-current results without gauge theories. **80b:81103**
Brydges, David (*with* Fröhlich, Jürg; Seiler, Erhard) Diamagnetic and critical properties of Higgs lattice gauge theories. **80c:81121**
Budini, Paolo (*with* Furlan, P.; Rączka, Ryszard) A possible geometrical origin of isotopic symmetry group in strong interactions. **80a:81103**
(*with* Furlan, P.; Rączka, Ryszard) Possible origin of isotopic spin from extended conformal symmetry. **80g:81073**
Caniz, P. (*with* Dattoli, G.; Mignani, Roberto; Prosperi, D.) SU_3 subalgebras of SU_6 and mass sum rules for hadrons with charm, beauty and taste. (Italian and Russian summaries) **80j:81081**
Carmeli, Moshe (*with* Wohl, D. H.) Chern classes, Pontrjagin forms and classification of gauge fields. **80f:81105**
Constantopoulos, J. P. (*with* Ktorides, C. N.) Symmetry schemes compatible with nonselfadjoint Lie-admissible forces. **80k:81168**
Dadaljan, K. Ju. *See* **Horužii, S. S., 80k:81074**
van Dam, H. (*with* Biedenharn, L. C.) An explicit model exhibiting a generalization of global supersymmetry. **80d:81118**
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Davidson, A. Covariant n^3-plet mass formulas. **80d:81119**
Dürr, H.-P. (*with* Saller, H.) Gauge-invariant rearrangement and theory of the Cabibbo angle. (Italian and Russian summaries) **80f:81106**
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Fré, P. On the mass-group associated to hadronic mass-spectrum. The role and the problems of SL(2, R) and SL(2, Z). **80i:81058**
Fröhlich, Jürg *See* **Brydges, David; et al., 80c:81121**
Furlan, P. *See* **Budini, Paolo; et al., 80a:81103** *and* **Budini, Paolo; et al., 80g:81073**
Geyer, B. (*with* Robaschik, D.; Wieczorek, E.) Theory of deep inelastic lepton-hadron scattering. **80g:81074**
Gherman, O. (*with* Saliu, L.) Singular orbits for the complexified SU(5) algebra. **80d:81120**
Gottlieb, Hans P. W. Towards a unified nonlinear theory of massless bosons. **80k:81169**
Horchani, Salah *See* **Beau, Daniel, 80k:81167**
Horužii, S. S. (*with* Dadaljan, K. Ju.) Algebras of observables in models of quantum field theory with superselection rules. **80k:81074**
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Inoue, Masao Broken chiral SU(4)⊗SU(4) based on SU(4)⊃SU(2)⊗SU(2). **80i:81059**
Ktorides, C. N. *See* **Constantopoulos, J. P., 80k:81168**
Kugo, Taichiro The fate of the U(1) Goldstone boson. **80g:81075**
Lukierski, Jerzy Fundamental fermionic coordinates and quark variables. **80k:81170**
Mack, G. Confinement of static quarks in two-dimensional lattice gauge theories. **80b:81105**
Matthews, P. T. *See* **Feldman, G., 80b:81104**
Meyers, C. (*with* de Roo, M.; Sorba, P.) Group-theoretical aspects of instantons. (Italian and Russian summaries) **80m:81100**
Mignani, Roberto *See* **Caniz, P.; et al., 80j:81081**
Nambu, Y. Topological problems in gauge theories. **80d:81122**
Ne'eman, Yuval (*with* Šijački, Djordje) Unified affine gauge theory of gravity and strong interactions with finite and infinite $\overline{GL}(4, R)$ spinor fields. **80i:81060**
Nikitin, A. G. The additional symmetry of the Dirac-Fierz-Pauli equation. (Russian. English summary) **80i:81061**
Olive, David Supersymmetric solitons. **80k:81171**
Onufriĭčuk, S. P. The symmetry groups of Majorana equations. (Russian. English summary) **80g:81076a**
See also **Sokur, L. P., 80g:81076b**
O'Raifeartaigh, Lochlainn Static solitons in more than one dimension. **80d:81121**
Osterwalder, Konrad Gauge theories on the lattice. **80a:81104**
Prosperi, D. *See* **Caniz, P.; et al., 80j:81081**
Rączka, Ryszard *See* **Budini, Paolo; et al., 80a:81103** *and* **Budini, Paolo; et al., 80g:81073**
Rembieliński, J. Quaternionic Hilbert space and colour confinement. I. **80i:81062a**
Quaternionic Hilbert space and colour confinement. II. The admissible symmetry groups. **80i:81062b**
Robaschik, D. *See* **Geyer, B.; et al., 80g:81074**
de Roo, M. *See* **Meyers, C.; et al., 80m:81100**
Roskies, Ralph *See* **Anandan, J., 80d:81117**
Saliu, L. *See* **Gherman, O., 80d:81120**
Saller, H. *See* **Dürr, H.-P., 80f:81106**
Salomonson, Per Supersymmetric actions for spinning particles. **80g:81077**
Seiler, Erhard *See* **Brydges, David; et al., 80c:81121**
Šijački, Djordje *See* **Ne'eman, Yuval, 80i:81060**
Smorodinskiĭ, Ja. A. The Clebsch-Gordan coefficients, the *d*-function of SU(2), and their symmetry. **80c:81122**
Sokur, L. P. (*with* Onufriĭčuk, S. P.) Additional symmetry of the generalized Bargmann-Wigner equation with proper time. (Russian. English summary) **80g:81076b**
Sorba, P. *See* **Meyers, C.; et al., 80m:81100**
Surányi, Peter Classical, cross-section generating solutions of field equations. **80i:81063**
Susuki, Y. (*with* Tóth, K.) On the role of some subgroups of the Poincaré group in models of high-energy physics. I. (Italian and Russian summaries) **80i:81064**
Tóth, K. *See* **Susuki, Y., 80i:81064**
Verdiev, Î. A. ★Инварианты представлений групп Лоренца и их применение в дуальной модели физики частиц. (Russian) [Invariants of the representations of Lorentz groups and their applications in the dual model of particle physics] **80j:81083**
Ward, B. F. L. Quarks, quaternions and weakly coupled gauge fields. (Italian and Russian summaries) **80i:81065**
Wieczorek, E. *See* **Geyer, B.; et al., 80g:81074**
Wilson, Kenneth G. Quantum chromodynamics on a lattice. **80a:81105**
Wohl, D. H. *See* **Carmeli, Moshe, 80f:81105**
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Abellanas, L. (*with* Martínez Alonso, L.) Invariants in enveloping algebras under the action of Lie algebras of derivations. **(80k:17009)**
Carmeli, Moshe Classification of Yang-Mills fields. (Italian summary) **(80g:81040)**
Gibson, W. M. (*with* Pollard, B. R.) ★Принципы симметрии в физике элементарных частиц. (Russian) [Symmetry principles in elementary particle physics] **(80m:81002)**
Martínez Alonso, L. *See* **Abellanas, L., (80k:17009)**
(Muzeus, L. A.) *See* **Gibson, W. M.; et al., (80m:81002)**

Okubo, Susumu Quartic trace identity for exceptional Lie algebras. **(80h:17008)**
(Perelomov, A. P.) *See* **Gibson, W. M.; et al., (80m:81002)**
Pollard, B. R. *See* **Gibson, W. M., (80m:81002)**
Rund, Hanno Variational derivation and uniqueness of the equations of motion of a particle in a classical gauge field. **(80d:81082)**
Stora, R. Continuum gauge theories. **(80f:81085)**

81G25 Other elementary particle theory

Anikin, S. A. (*with* Zav'jalov, O. I.) Short-distance expansion for products of current-like operators. **80f:81107**
Ardalan, Farhad Self-dual Euclidean gauge fields for semisimple groups. **80a:81106**
Bahar, Leon Y. (*with* Kwatny, Harry G.; Massimo, F. M.) Direct and inverse variational characterization of linear nonconservative systems. **80g:81078**
Bals, F. Alexander (*with* Weldon, H. Arthur) Exact SU(n) instantons with cylindrical symmetry. **80d:81123**
Berestetskiĭ, V. B. ★Проблемы физики элементарных частиц. (Russian) [Problems of elementary particle physics] **80f:81108**
Bondarenko, A. I. (*with* Gulamov, K. G.; Petrov, V. I.; Černov, G. M.) Associated multiplicities of secondary particles in a statistical model of multiple creation. (Russian) **80a:81107**
Cast, R. J. The effective potential, vacuum tunnelling and the $1/N$ expansion. **80h:81075**
Carey, David C. (*with* Drijard, Daniel) Monte Carlo phase space with limited transverse momentum. **80a:81108**
Černov, G. M. *See* **Bondarenko, A. I.; et al., 80a:81107**
Davies, E. Brian Particle-boson interactions and the weak coupling limit. **80d:81124**
Drijard, Daniel *See* **Carey, David C., 80a:81108**
Gilbert, J. Dennis *See* **Girardeau, M. D., 80f:81109**
Girardeau, M. D. (*with* Gilbert, J. Dennis) Fock-Tani representation for the quantum theory of reactive collisions. **80f:81109**
Gulamov, K. G. *See* **Bondarenko, A. I.; et al., 80a:81107**
Gundersen, Steven C. Two-Reggeon cut in the ordered phase of Reggeon field theory. **80h:81172**
Hasenfratz, P. A puzzling combination: disorder × order. **80f:81110**
Hosoya, Akio (*with* Uehara, Kunihiko) A baryon number generation mechanism in the expanding universe. **80h:81173**
Jegerlehner, F. The vectorboson and graviton propagators in the presence of multipole forces. **80j:81084**
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Butler, P. H. (*with* Haase, R. W.; Wybourne, B. G.) Calculation of $3jm$ factors and the matrix elements of E_7 group generators. **80e:81098**
Camiz, P. (*with* Dattoli, G.; Mignani, Roberto; Prosperi, D.) SU_3 subalgebras of SU_6 and generalized U-spin in a new approach to the magnetic moments of charmed baryons. (Italian and Russian summaries) **80b:81106**
Castaños, O. (*with* Chacón, E.; Frank, A.; Moshinsky, Marcos) Group theory of the interacting boson model of the nucleus. **80c:81123**
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Ginocchio, Joseph N. (*with* Talmi, Igal) On the correspondence between fermion and boson states and operators. **80m:81102**
Góźdź, Andrzej (*with* Szpikowski, Stanisław) The complete base of the symmetric representation of the O(5)⊗SU(1, 1) group. (Polish and Russian summaries) **80k:81178**
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Kramer, P. Composite particles and symplectic (semi-) groups. **80d:81127**
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81G35 Other nuclear physics

Alberico, W. M. (*with* Cenni, R.; Molinari, Alain) The response function of the infinite nuclear matter. **80k:81179**
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Djolos, R. V. (*with* Molina, H. L.; Solov'ev, V. G.) Effect of the Pauli principle on properties of two-phonon states. (Russian. English summary) **80f:81070**
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(*with* Papastamatiou, N. J.) Spontaneous breakdown of chiral $SU_N \times SU_N$. **80a:81110b**

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Kondo, Kazuo On the dimensional construction of elementary particles and physical space and time. (Japanese summary) **80a:81113**

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(Böhm, Arno) *See* **Group theoretical methods in physics, (80i:81002)**

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Špakauskas, V. V. (*with* Kaniauskas, J.; Rudzikas, Z. B.) Genealogical coefficients that are reduced in a quasispin space, and submatrix elements of tensorial operators. (Russian. Lithuanian and English summaries) **(80c:22017)**

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Mathematical physics *See* **Group theoretical methods in physics, (80i:81002)**

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Brézis, Haïm Nonlinear problems related to the Thomas-Fermi equation. **80j:81088**

Brickmann, Jürgen Local states in one-dimensional symmetrical quantum systems. **80h:81183**

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Dalgaard, Esper Time-dependent multiconfigurational Hartree-Fock theory. **80m:81109**
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Flessas, G. P. An exact solution of the Hartree-Fock-Bogolubov equations. **80k:81184**
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Hoffmann-Ostenhof, Thomas Lower and upper bounds to the decay of the ground state one-electron density of helium-like systems. **80b:81080**
Kirschbaum, C. L. (*with* Wilets, L.) Classical many-body model for atomic collisions incorporating the Heisenberg and Pauli principles. **80m:81110**
Konishi, K. (*with* Ukawa, A.; Veneziano, G.) Jet calculus: a simple algorithm for resolving QCD jets. **80g:81086**
Lichtner, Peter C. (*with* Griffin, James J.; Schultheis, Hildegard; Schultheis, Rainer; Volkov, Anatole B.) Variational derivation of a time-dependent Hartree-Fock Hamiltonian. **80f:81115**
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Popov, V. S. (*with* Voskresenskiĭ, D. N.; Eletskiĭ, V. L.; Mur, V. D.) WKB method at $Z > 137$ and its applications to the theory of supercritical atoms. **80l:81072**
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Viswanathan, K. S. (*with* Yee, Jae Hyung) Massless fermions coupled to N-pseudoparticle field: isospin $\frac{1}{2}$. (French summary) **80f:81116**
Volkov, Anatole B. *See* **Lichtner, Peter C.; et al., 80f:81115**
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Boyle, L. L. (*with* Parker, Yvonne M.) Symmetry coordinates and vibration frequencies for an icosahedral cage. **80k:81185**
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Chiu, Ying Nan *See* **Metropoulos, Aristophanes, 80g:81087**
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Meinköhn, Dirk The notion of an algebraic invariant and the related basis concepts in the investigation of certain physical properties. **80k:81186**
Metropoulos, Aristophanes (*with* Chiu, Ying Nan) Generalized classification of the rotational-vibrational wavefunctions of C_{3v} and D_{3h} symmetric tops according to their respective molecular point groups. **80g:81087**
Murray-Rust, Peter (*with* Bürgi, Hans-Beat; Dunitz, Jack D.) Description of molecular distortions in terms of symmetry coordinates. **80l:81074**
Novosadov, B. K. Exact calculation of molecular integrals from hydrogenlike atomic orbitals. (Russian) **80k:81187**
Parker, Yvonne M. *See* **Boyle, L. L., 80k:81185**
Patterson, Chris W. *See* **Harter, William G., 80e:81102**
Rudra, P. (*with* Sikdar, M. K.) Group theoretical analysis of second-order phase transitions in magnetic structures. **80f:81117**
Sikdar, M. K. *See* **Rudra, P., 80f:81117**
Szczepaniak, B. *See* **Lulek, B.; et al., 80l:81073a**

Secondary classifications:

Burns, Gerald ★Introduction to group theory with applications. **(80f:20009)**

81G55 Other molecular physics

Ballot-Kurti, G. G. *See* **Shapiro, M., 80e:81104**
Brüggemann, R. (*with* Voitländer, J.) Zur Unabhängigkeit und Wohldefiniertheit der Hückel-Parameter. (English summary) **80k:81188**
(*with* Voitländer, J.) Konsequenzen einer abbildungstheoretischen Deutung von Hückel-Parametern für die Diskussion von Charge-Transfer-Effekten in Dreizentrensystemen. (English summary) **80b:81081**
Colwell, S. M. (*with* Handy, N. C.; Miller, W. H.) Semiclassical eigenvalues for rotating triatomic molecules. **80k:81189**
Davydov, A. S. Solitons in molecular systems. **80j:81090**
Effect of the electron-phonon interaction on the motion of the electron in a one-dimensional molecular system. (Russian. English summary) **80k:81190**
Deb, B. M. (*with* Ghosh, S. K.) On some "local" force densities and stress tensors in molecular quantum mechanics. **80k:81191**
Doddrell, David M. *See* **Edwards, Stephen A.; et al., 80j:81091**
Edwards, Stephen A. (*with* Gottlieb, Hans P. W.; Doddrell, David M.) A general analytic procedure for calculating two-centre integrals involving the one-electron dipolar coupling operator and Slater atomic orbitals. **80j:81091**
Ezra, G. S. On the symmetry properties of nonrigid molecules. A unified approach. **80e:81075**
Ghosh, S. K. *See* **Deb, B. M., 80k:81191**
Godsil, C. D. (*with* Gutman, Ivan) Topological resonance energy is real. **80j:81092**
Gottlieb, Hans P. W. *See* **Edwards, Stephen A.; et al., 80j:81091**
Gutman, Ivan *See* **Godsil, C. D., 80j:81092**
Handy, N. C. *See* **Colwell, S. M.; et al., 80k:81189**
Karkach, S. P. (*with* Osherov, V. I.) Quasiclassical dynamics of Jahn-Teller molecules. **80a:81114**
Koszykowski, M. L. *See* **Marcus, R. A.; et al., 80k:81192**
Lin, Lian Tang *See* **Zhang, Qian Er; et al., 80m:81113**
Liu, Han Zhao New types of semi-inclusive processes of multiparticle productions. I. Scaling laws. **80a:81115**
Marcus, R. A. (*with* Noid, D. W.; Koszykowski, M. L.) Semiclassical studies of bound states and molecular dynamics. **80k:81192**
McCurdy, C. William Complex-coordinate calculation of matrix elements of the resolvent of the Born-Oppenheimer Hamiltonian. **80k:81193**
Miller, W. H. *See* **Colwell, S. M.; et al., 80k:81189**
Noid, D. W. *See* **Marcus, R. A.; et al., 80k:81192**
Nudel'man, A. A. (*with* Tulub, A. V.) Extremal problems in the theory of van der Waals forces. (Russian. English summary) **80e:81103**
Osherov, V. I. *See* **Karkach, S. P., 80a:81114**
Percival, Ian C. Regular and irregular spectra of molecules. **80k:81194**
Shapiro, M. (*with* Balint-Kurti, G. G.) A new method for the exact calculation of vibrational-rotational energy levels of triatomic molecules. **80e:81104**
Trivedi, H. P. Improved matrix elements of $\delta(r_1)$ using approximate wavefunctions. **80m:81111**
Tulub, A. V. *See* **Nudel'man, A. A., 80e:81103**
Voitländer, J. *See* **Brüggemann, R., 80b:81081** *and* **Brüggemann, R., 80k:81188**
Wang, Nan Qin *See* **Zhang, Qian Er; et al., 80m:81113**
Zhang, Fu Ji Eigenvalue network and molecular orbitals. **80m:81112**
Zhang, Qian Er (*with* Lin, Lian Tang; Wang, Nan Qin) Graphical method of Hückel matrix. **80m:81113**

Secondary classifications:

D'Amato, Susan S. Eigenvalues of graphs with twofold symmetry. **(80c:05098)**
Delos, John B. *See* **Swimm, Randall T., (80m:81039)**
Swimm, Randall T. (*with* Delos, John B.) Semiclassical calculations of vibrational energy levels for nonseparable systems using the Birkhoff-Gustavson normal form. **(80m:81039)**

81G99 None of the above, but in this section

Brodimas, G. N. *See* **Jannussis, A. D.; et al., 80l:81077**
Ciafaloni, M. Existence of path integral for reggeon quantum mechanics. **80l:81076**
Cortois, Jean *See* **Jauffret, Claude, 80f:81118**
DeGregoria, A. J. Understanding the self-interaction of charged particles. (Italian summary) **80m:81114**
Goddard, Peter Magnetic monopoles and related objects. **80a:81116**
Guignard, G. ★A general treatment of resonances in accelerators. **80a:81117**
Hu, Ning The saturation property of stratonic forces. (Chinese) **80a:81118**
Jannussis, A. D. (*with* Brodimas, G. N.; Streclas, A. A.) Quantum friction in a uniform magnetic field. **80l:81077**
Jauffret, Claude (*with* Cortois, Jean) Faddeev equations for four-body atomic problems and solutions for the Li^6 system. **80f:81118**
Karasev, M. V. (*with* Maslov, V. P.) Quasiclassical soliton solutions of the Hartree equation. Newtonian interaction with screening. (Russian. English summary) **80c:81078**
Macrae, K. I. Fermions and bosons in a unified framework. I. Physical foundations. **80a:81119a**
Fermions and bosons in a unified framework. II. Interacting models. **80a:81119b**
Fermions and bosons in a unified framework. III. Mathematical structures and physical questions. **80a:81119c**
Mahanta, M. N. On the problem of embedding hadronic microuniverses in normal flat space-time. **80m:81115**
Maslov, V. P. *See* **Karasev, M. V., 80l:81078**
Moshe, Moshe Recent developments in Reggeon field theory. **80f:81119**
Randić, Milan Characterization of atoms, molecules and classes of molecules based on paths enumerations. **80m:81116**
Ryder, L. H. Dirac monopoles and the Hopf map $S^3 \to S^2$. **80m:81117**
Streclas, A. A. *See* **Jannussis, A. D.; et al., 80l:81077**
Ward, Richard A. Numerical calculation of the limiting properties of Coulomb excitation functions. **80a:81120**

Secondary classifications:
Freeman, N. C. A two-dimensional distributed soliton solution of the Korteweg-de Vries equation. **(80b:35113)**
Orzalesi, C. A. Bound and rebound states. (Italian and Russian summaries) **(80m:81041)**
Scheunert, Manfred Generalized Lie algebras. **(80f:17007)**

81H05 Quantum mechanics of many-body systems

Biskupič, Stanislav *See* **Kvasnička, Vladimír; et al., 80k:81197**
Blankenbecler, Richard (*with* DeGrand, T.; Sugar, R. L.) Moment method for eigenvalues and expectation values. **80m:81118**
Broadbridge, P. Normal forms for classical and boson systems. **80m:81119**
Calais, Jean-Louis Chaînes polymériques et isolants de Mott. (English summary) **80g:81088**
Cortois, Jean *See* **Jauffret, Claude, 80b:81116**
Dadašev, L. A. (*with* Kuliev, V. Ju.) Diagonalization of bilinear Bose Hamiltonians and asymptotic behavior of corresponding Heisenberg fields. (Russian. English summary) **80e:81105**

DeGrand, T. *See* Blankenbecler, Richard; et al., 80m:81118
Giraud, B. G. (*with* Rowe, D. J.) Curvature as a measure of collectivity. 80i:81079
Havas, Peter The conservation laws of nonrelativistic classical and quantum mechanics for a system of interacting particles. 80b:81115
Ivanov, A. Ĭ. (*with* Lomakin, G. S.; Ponomarev, O. A.) Investigation of systems with quadratic interaction by the method of functional derivatives. (Russian. English summary) 80m:81120
Jackson, A. D. (*with* Lande, A.; Lantto, L. J.) Euler-Lagrange equations and hypernetted chain calculations of boson matter. 80k:81195
Jauffret, Claude (*with* Cortois, Jean) Faddeev equations for four-body atomic problems in the momentum representation. 80b:81116
Kirinic, D. A. Superconductivity and elementary particles. 80f:81120
Klienert, H. Collective quantum fields. 80m:81121
Krivnov, V. Ja. (*with* Ovčinnikov, A. A.) New method in the theory of a weakly ideal one-dimensional Fermi gas. Correlation functions. 80k:81196
Kuliev, V. Ju. *See* Dadašev, L. A., 80e:81105
Kvasnička, Vladimír (*with* Laurinc, Viliam; Biskupič, Stanislav) Wigner's $(2n+1)$ rule in MBPT. 80k:81197
Lande, A. *See* Jackson, A. D.; et al., 80k:81195
Lantto, L. J. *See* Jackson, A. D.; et al., 80k:81195
Laurinc, Viliam *See* Kvasnička, Vladimír; et al., 80k:81197
Lomakin, G. S. *See* Ivanov, A. Ĭ.; et al., 80m:81120
Nijboer, B. R. A. *See* Ventevogel, W. J., 80i:81080
Ovčinnikov, A. A. *See* Krivnov, V. Ja., 80k:81196
Perelomov, A. M. Exact results for one-dimensional many-particle systems. (Russian. English summary) 80k:81198
Ponomarev, O. A. *See* Ivanov, A. Ĭ.; et al., 80m:81120
Razavy, M. Quantum-mechanical irreversible motion of an infinite chain. (French summary) 80k:81199
Rowe, D. J. *See* Giraud, B. G., 80i:81079
Shalitin, Dan (*with* Tikochinsky, Yoel) Transformation between the normal and antinormal expansions of boson operators. 80j:81093
Sherrington, David Some aspects of functional integrals and many-body theory. 80e:81106
Sugar, R. L. *See* Blankenbecler, Richard; et al., 80m:81118
Tikochinsky, Yoel *See* Shalitin, Dan, 80j:81093
Truskova, N. F. Linear algebra of integrals in the quantum-mechanical two-center problem. 80h:81082
Ventevogel, W. J. (*with* Nijboer, B. R. A.) On the configuration of systems of interacting particle with minimum potential energy per particle. 80i:81080
Zelevinskiĭ, V. G. Microscopic derivation of a quantum Hamiltonian for adiabatic collective motion. 80m:81122

Secondary classifications:

Blank, Jiří (*with* Hořejší, J.) Higher-order terms in the Brueckner-Goldstone perturbation expansions. (Russian and Czech summaries) (80m:81103)
Delft, P. (*with* Hunziker, W.; Simon, Barry; Vock, E.) Pointwise bounds on eigenfunctions and wave packets in N-body quantum systems. IV. (80k:81016)
Hořejší, J. *See* Blank, Jiří, (80m:81103)
Hunziker, W. *See* Delft, P.; et al., (80k:81016)
Kirschbaum, C. L. (*with* Wilets, L.) Classical many-body model for atomic collisions incorporating the Heisenberg and Pauli principles. (80m:81110)
Simon, Barry *See* Delft, P.; et al., (80k:81016)
Swanson, Mark S. Functional methods in nonrelativistic field theories. (80e:81082)
Vidybida, A. K. The Cauchy problem for the Bogoljubov chain of equations. One-dimensional quantum lattice systems. (Russian. English summary) (80e:82042)
Vock, E. *See* Delft, P.; et al., (80k:81016)
Wilets, L. *See* Kirschbaum, C. L., (80m:81110)

81J05 Superconductivity and superfluidity

Bullough, R. K. *See* Kitchenside, P. W.; et al., 80m:81123
Caudrey, P. J. *See* Kitchenside, P. W.; et al., 80m:81123
Golo, V. L. (*with* Monastyrskiĭ, M. I.; Novikov, S. P.) Solutions to the Ginzburg-Landau equations for planar textures in superfluid ^{3}He. 80i:81081
Halatnikov, I. M. *See* Lebedev, V. V., 80h:81083
Ichiyanagi, Masakazu Roton spectrum of condensed Bose systems. 80d:81135
Generalized solutions to the Gross-Pitaevskiĭ equation. 80k:81200
Kitchenside, P. W. (*with* Bullough, R. K.; Caudrey, P. J.) Spin wave breathers in ^{3}He B. 80m:81123
Lebedev, V. V. (*with* Halatnikov, I. M.) Hamiltonian hydrodynamics equations for a quantum fluid in the presence of solitons. 80h:81083
Love, A. (*with* Zakrzewski, S.) Topology of textures in the planar phase of superfluid ^{3}He. 80g:81089
Maier, V. (*with* Sal'e, N.) On the general relativistic phenomenological theory of superconductivity. (Russian. English summary) 80b:81117
McCauley, Joseph L., Jr. Phase space quantisation of interacting vortices in two dimensions. 80k:81201
Monastyrskiĭ, M. I. *See* Golo, V. L.; et al., 80i:81081
Novikov, S. P. *See* Golo, V. L.; et al., 80i:81081
Reichl, L. E. Microscopic theory of superfluid Fermi systems. I. Binary expansion. 80e:81107a
Microscopic theory of superfluid Fermi systems. II. Application to low density hard sphere system. 80e:81107b
Sal'e, N. *See* Maier, V., 80b:81117
Zakrzewski, S. *See* Love, A., 80g:81089

Secondary classifications:

Entin-Wohlman, O. (*with* Orbach, R.) On the microscopic and Boltzmann equation approaches to nonequilibrium superconductors. (80k:82040)
Klienert, H. Collective quantum fields. (80m:81121)
Liniger, Werner (*with* Odeh, F.) A perturbation calculation of the I-V characteristic of an extended Josephson junction. (80d:78020)
Odeh, F. *See* Liniger, Werner, (80d:78020)
Orbach, R. *See* Entin-Wohlman, O., (80k:82040)
Petry, Herbert Rainer Exotic spinors in superconductivity. (80e:55011)

81K05 Quantum optics

Abu-Sitta, A. M. *See* Obada, A. S. F.; et al., 80k:81205
Bullough, R. K. (*with* Jack, P. M.; Kitchenside, P. W.; Saunders, R.) Solitons in laser physics. 80k:81202
Casperson, Lee W. Stability criteria for high-intensity lasers. 80m:81124
Deguchi, Kisaburo Electron scattering from atoms within a laser field: Green's function method. 80j:81094
Durrant, A. V. A derivation of optical field quantization from absorber theory. 80m:81125
Dutta, Niloy K. Two-photon resonant four-wave mixing with nonmonochromatic waves. 80k:81203
Haken, H. (*with* Wunderlin, A.) Laser instabilities—an example from synergetics. 80k:81204
Jack, P. M. *See* Bullough, R. K.; et al., 80k:81202
Kitchenside, P. W. *See* Bullough, R. K.; et al., 80k:81202
Mahran, M. H. A. *See* Obada, A. S. F.; et al., 80k:81205
Mukunda, N. *See* Sudarshan, E. C. G., 80i:81082
Obada, A. S. F. (*with* Abu-Sitta, A. M.; Mahran, M. H. A.) Commutation relations and the moments effects in the theory of quantum optics. (Arabic summary) 80k:81205
Peřina, J. *See* Peřinová, V., 80b:81118a *and* Peřinová, V., 80b:81118b
Peřinová, V. (*with* Peřina, J.) Generalized Fokker-Planck equation approach to optical parametric processes. I. Equations of motion and their solutions. 80b:81118a
(*with* Peřina, J.) Generalized Fokker-Planck equation approach to optical parametric processes. II. Photocounting statistics. 80b:81118b
Saunders, R. *See* Bullough, R. K.; et al., 80k:81202
Srinivasan, S. K. (*with* Udayabaskaran, S.) Canonical extension of a problem in parametric frequency up-conversion with stochastic pumping. (German summary) 80m:81126
Sudarshan, E. C. G. (*with* Mukunda, N.) Structure and representation of correlation functions and the density matrix for a statistical wave field in optics. 80i:81082
Udayabaskaran, S. *See* Srinivasan, S. K., 80m:81126
Wunderlin, A. *See* Haken, H., 80k:81204

Secondary classifications:

Fuščič, V. I. (*with* Nikitin, A. G.) Group properties of Maxwell equations. (Russian. English summary) (80e:78006)
Hasegawa, Hiroshi (*with* Nakagomi, T.) Semiclassical laser theory in the stochastic and thermodynamic frameworks. (80m:82027)
Jankelevič, R. P. *See* Sljusarev, V. A., (80j:82012)
Machado Mata, Jesus A. *See* Shapiro, Jeffrey H.; et al., (80f:94005b)
Nakagomi, T. *See* Hasegawa, Hiroshi, (80m:82027)
Nikitin, A. G. *See* Fuščič, V. I., (80e:78006)
Shapiro, Jeffrey H. (*with* Yuen, Horace P.; Machado Mata, Jesus A.) Optical communication with two-photon coherent states. II. Photoemissive detection and structured receiver performance. (80f:94005b)
See also Yuen, Horace P., (80f:94005a)
Sljusarev, V. A. (*with* Jankelevič, R. P.) Impossibility of phase transition into the superradiating state in a gauge-invariant system which is in thermodynamic equilibrium. (Russian. English summary) (80j:82012)
Yuen, Horace P. (*with* Shapiro, Jeffrey H.) Optical communication with two-photon coherent states. I. Quantum-state propagation and quantum-noise reduction. (80f:94005a)
See also Shapiro, Jeffrey H.; et al., (80f:94005b)

81L05 Quantum electrodynamics

Akhoury, Ratindranath (*with* Jun, Jung Hwan; Goldhaber, Alfred S.) Linear deformations of the Prasad-Sommerfield monopole. 80k:81206
Baker, M. (*with* Johnson, K.) Applications of conformal symmetry in quantum electrodynamics. 80f:81121
Barut, A. O. (*with* Rabuffo, I.; Vitiello, G.) On electrodynamics with internal fermionic excitations. 80h:81084
Bialynicki-Birula, Iwo Charge conservation and gauge invariance. 80k:81207
Bopp, Fritz Ein streng lösbares Teilproblem der Quantenelektrodynamik. 80g:81090
Brandt, Richard A. (*with* Young, Kenneth) Electric-magnetic duality as a secondary symmetry. 80k:81208
Caldirola, P. On a model of the relativistic electron deriving from the introduction of the chronon. 80c:81130
Carey, A. L. (*with* Gaffney, J. M.; Hurst, C. A.) A C^*-algebra formulation of gauge transformations of the second kind for the electromagnetic field. 80d:81136
Cheon, Il-Tong Hypothesis of the fundamental length and quantum electrodynamics. 80f:81122
De Angelis, Gian Fabrizio (*with* de Falco, Diego; Guerra, Francesco) Gauge fields on the lattice. 80e:81108
DeGregoria, A. J. Understanding the self-interaction of charged particles. (Italian and Russian summaries) 80f:81123
Delbourgo, R. (*with* Keck, B. W.) On the gauge dependence of spectral functions. 80k:81209
Dirac, Paul A. M. The monopole concept. 80d:81137
Endo, R. *See* Hasumi, A.; et al., 80f:81124

de Falco, Diego *See* De Angelis, Gian Fabrizio; et al., 80e:81108
Fierz, H. (*with* Scharf, G.) Particle interpretation for external field problems in QED. 80m:81127
Fröhlich, Jürg (*with* Morchio, G.; Strocchi, F.) Charged sectors and scattering states in quantum electrodynamics. 80g:81091
The charged sectors of quantum electrodynamics in a framework of local observables. 80h:81210
Gaffney, J. M. *See* Carey, A. L.; et al., 80d:81136
Gavrilov, S. P. (*with* Gitman, D. M.; Švarcman, Š. M.) Green's functions in an external electric field. 80k:81211
Gitman, D. M. *See* Gavrilov, S. P.; et al., 80k:81211
Goldhaber, Alfred S. *See* Akhoury, Ratindranath; et al., 80k:81206
Gordov, E. P. (*with* Tvorogov, S. D.) ★Квантовая теория распространения электромагнитного поля. (Russian) [The quantum theory of the propagation of an electromagnetic field] 80b:81119
Guerra, Francesco *See* De Angelis, Gian Fabrizio; et al., 80e:81108
Hasumi, A. (*with* Endo, R.; Kimura, T.) Dirac quantisation of a massive spin-$\frac{1}{2}$ particle coupled with a magnetic field. 80f:81124
Hoogland, Henk Minimal electromagnetic coupling in elementary quantum mechanics; a group theoretical derivation. 80e:81131
Horváth, Zalán (*with* Palla, László) Spontaneous compactification and "monopoles" in higher dimensions. 80d:81138
Hostler, Levere Coulomb-like quantization of the electromagnetic field on spacelike hyperboloids. 80a:81121
Hurst, C. A. *See* Carey, A. L.; et al., 80d:81136
Johnson, K. *See* Baker, M., 80f:81121
Jones, D. R. T. (*with* Kogut, John; Sinclair, D. K.) Electrodynamics of the planar model: its phase diagram, continuum limit, and mass spectrum. 80e:81109
Jun, Jung Hwan *See* Akhoury, Ratindranath; et al., 80k:81206
Kamal, A. N. The Muskhelishvili-Omnès equation and final state interactions. (French summary) 80i:81083
Kamiya, K. Infra-red behaviour of QED with Weinberg's and 't Hooft's renormalization group equations. 80k:81212
Keck, B. W. *See* Delbourgo, R., 80k:81209
Kimura, T. *See* Hasumi, A.; et al., 80f:81124
Kogut, John *See* Jones, D. R. T.; et al., 80e:81109
Lim, S. C. Free electromagnetic potentials in Minkowski and Euclidean regions. 80j:81095
Mannheim, Philip D. Dynamical basis for the Poincaré stresses. 80e:81110
Morchio, G. *See* Fröhlich, Jürg; et al., 80g:81091
Nash, Charles (*with* Stuller, R. L.) On the use of the renormalisation group near the electron's mass shell. 80a:81122
Nenciu, G. (*with* Scharf, G.) On regular external fields in quantum electrodynamics. 80d:81139
Palla, László *See* Horváth, Zalán, 80d:81138
Rabuffo, I. *See* Barut, A. O.; et al., 80h:81084
Rideau, G. Erratum and addendum: "Quantization of the Maxwell field in linear conformal invariant gauges" [Lett. Math. Phys. 3 (1979), no. 3, 229–235; MR 80i:78003]. 80k:81213
Righi, R. (*with* Venturi, G.) $g-2$ in a nonlinear approach to quantum electrodynamics. (Italian and Russian summaries) 80m:81128
Ruggiero, J. R. (*with* Villani, A.; Zimerman, A. H.) Some comments on the application of analytic regularisation to the Casimir forces. 80k:81214
Scharf, G. *See* Nenciu, G., 80d:81139 *and* Fierz, H., 80m:81127
Sinclair, D. K. *See* Jones, D. R. T.; et al., 80e:81109
Sorkin, Rafael The quantum electromagnetic field in multiply connected space. 80c:81132
Strocchi, F. *See* Fröhlich, Jürg; et al., 80g:81091
Stuller, R. L. *See* Nash, Charles, 80a:81122
Švarcman, Š. M. *See* Gavrilov, S. P.; et al., 80k:81211
Timofeevskaja, O. D. Taking into account the relative group motion in the charged scalar theory with two sources. (Russian. English summary) 80b:81120
Tvorogov, S. D. *See* Gordov, E. P., 80b:81119
Venturi, G. *See* Righi, R., 80m:81128
Villani, A. *See* Ruggiero, J. R.; et al., 80k:81214
Viticllo, G. *See* Barut, A. O.; et al., 80h:81084
Young, Kenneth *See* Brandt, Richard A., 80k:81208
Zimerman, A. H. *See* Ruggiero, J. R.; et al., 80k:81214

Secondary classifications:

Barut, A. O. Electromagnetic fields on manifolds: Betti numbers, monopoles and strings, minimal coupling. (80d:78006)
Brandt, Richard A. (*with* Neri, Filippo) Nonabelian gauge invariant classical Lagrangian formalism for point electric and magnetic charge. (80e:78004)
Cetto, A. M. *See* de la Peña Auerbach, Luis, (80d:81013)
DeRand, Lester L., Jr. *See* Milton, Kimball A.; et al., (80e:78025)
Durrant, A. V. A derivation of optical field quantization from absorber theory. (80m:81125)
Hortaçsu, M. (*with* Rothe, K. D.; Schroer, B.) Generalized two-dimensional QED and functional determinants. (80k:81161)
Leite Lopes, J. (*with* Spehler, D.) The limit of massive electrodynamics and the two-component photon field theory. (80f:81055)
Miglietta, F. Internal $GL_{2c}\times GL^{*}_{2c}$ symmetry of Dirac equation with external electromagnetic field. (80h:81013)
Milton, Kimball A. (*with* DeRand, Lester L., Jr.; Schwinger, Julian) Casimir self-stress on a perfectly conducting spherical shell. (80e:78025)
Neri, Filippo *See* Brandt, Richard A., (80e:78004)
de la Peña Auerbach, Luis (*with* Cetto, A. M.) The quantum harmonic oscillator revisited: a new look from stochastic electrodynamics. (80d:81013)
Rothe, K. D. *See* Hortaçsu, M.; et al., (80k:81161)
Schroer, B. *See* Hortaçsu, M.; et al., (80k:81161)
Schwinger, Julian *See* Milton, Kimball A.; et al., (80e:78025)
Spehler, D. *See* Leite Lopes, J., (80f:81055)
Surdin, M. Stochastic electrodynamics. (80m:82059)

81M05 Relativistic theory

Andreo, R. H. (*with* Rohrlich, F.) Longitudinal vibrations of the relativistic string. 80a:81123
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81N05 Mathematically heuristic quantum mechanics (must also be assigned at least one other classification number in this section)

82–XX STATISTICAL PHYSICS, STRUCTURE OF MATTER

Mandelbrot, Benoît Geometric facets of statistical physics: scaling and fractals. **80a:82001**

82–01 Elementary exposition, textbooks

Landsberg, Peter T. ★Thermodynamics and statistical mechanics. **80k:82001**
Madelung, O. ★Introduction to solid-state theory. **80i:82001**
(Taylor, B. C.) *See* **Madelung, O., 80i:82001**
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82–02 Advanced exposition (research surveys, monographs, etc.)

Balescu, Radu ★Равновесная и неравновесная статистическая механика. Том 1. (Russian) [Equilibrium and nonequilibrium statistical mechanics. Vol. I] **80a:82002**
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Essing, I. G. The combinatorics of algebraic graph theory in theoretical physics. **80d:82001**
Gasser, Wilmut *See* **Elk, Klaus, 80k:82002**
Israel, Robert B. ★Convexity in the theory of lattice gases. **80i:82002**
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(Landau, L. D.) *See* **Lifšic, E. M.; et al., 80d:82002**
Lifšic, E. M. (*with* Pitaevskiĭ, L. P.) ★Теоретическая физика ["Ландау-Лифшиц"]. Том IX. (Russian) [Theoretical physics. ["Landau–Lifšic"] Vol. IX] **80d:82002**
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(Wightman, Arthur S.) *See* **Israel, Robert B., 80i:82002**
Zinnes, John M. ★Models of disorder. **80m:82001**
(Zubarev, D. N.) *See* **Balescu, Radu, 80a:82002**

82–03 Historical (must also be assigned at least one classification number from Section 01)

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Secondary classifications:

(Baclawski, K.) *See* **Kac, Mark, (80i:01016)**
(Donsker, M. D.) *See* **Kac, Mark, (80i:01016)**
Kac, Mark ★Mark Kac: probability, number theory, and statistical physics. **(80i:01016)**
Strnad, Janez Einstein and Planck's law. (Slovenian. English summary) **(80e:01028)**
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82–04 Explicit machine computation and programs (not the theory of computation or programming)

82–05 Experimental papers

82–06 Proceedings, conferences, etc.

(Balkanski, Minko) *See* **Proceedings: International Conference on Lattice Dynamics, 80f:82001**
(Garrido, L.) *See* **Stochastic processes in nonequilibrium systems, 80e:82001**
(Levine, Raphael D.) *See* **Maximum entropy formalism, 80b:82001**
(Seglar, P.) *See* **Stochastic processes in nonequilibrium systems, 80e:82001**
(Shepherd, P. J.) *See* **Stochastic processes in nonequilibrium systems, 80e:82001**
(Tribus, Myron) *See* **Maximum entropy formalism, 80b:82001**
Cambridge, Mass. *See* **Maximum entropy formalism, 80b:82001**
Conference:
Lattice Dynamics *See* **Proceedings: International Conference on Lattice Dynamics, 80f:82001**
Maximum Entropy Formalism *See* **Maximum entropy formalism, 80b:82001**
Entropy *See* **Maximum entropy formalism, 80b:82001**
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International Conference on Lattice Dynamics ★Proceedings of the International Conference on Lattice Dynamics. **80f:82001**
School:
Statistical Mechanics *See* **Stochastic processes in nonequilibrium systems, 80e:82001**
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Secondary classifications:

(Devreese, Jozef T.) *See* **Path integrals and their applications in quantum, statistical, and solid state physics, (80c:82019)**
(Eikemeier, Horst) *See* **Structural stability in physics, (80j:00017)**
(Güttinger, Werner) *See* **Structural stability in physics, (80j:00017)**
(Papadopoulos, George J.) *See* **Path integrals and their applications in quantum, statistical, and solid state physics, (80c:82019)**
Algèbres d'opérateurs et leurs applications en physique mathématique ★Algèbres d'opérateurs et leurs applications en physique mathématique. **(80k:46001)**
Antwerp *See* **Path integrals and their applications in quantum, statistical, and solid state physics, (80c:82019)**
Catastrophe theory *See* **Structural stability in physics, (80j:00017)**
Colloque:
Algèbres d'Opérateurs et leur Applications en Physique Mathématique *See* **Algèbres d'opérateurs et leurs applications en physique mathématique, (80k:46001)**
Colloques Internationaux du Centre National de la Recherche Scientifique *See* **Algèbres d'opérateurs et leurs applications en physique mathématique, (80k:46001)**
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NATO Advanced Study Institute:
Path Integrals and their Applications in Quantum, Statistical, and Solid State Physics *See* **Path integrals and their applications in quantum, statistical, and solid state physics, (80c:82019)**
Operator algebras *See* **Algèbres d'opérateurs et leurs applications en physique mathématique, (80k:46001)**
Path integrals and their applications in quantum, statistical, and solid state physics ★Path integrals and their applications in quantum, statistical, and solid state physics. **(80c:82019)**
Quantum physics *See* **Path integrals and their applications in quantum, statistical, and solid state physics, (80c:82019)**
Solid state physics *See* **Path integrals and their applications in quantum, statistical, and solid state physics, (80c:82019)**
Statistical physics *See* **Path integrals and their applications in quantum, statistical, and solid state physics, (80c:82019)**
Structural stability in physics ★Structural stability in physics. **(80j:00017)**
Symposia:
Applications of Catastrophe Theory and Topological Concepts in Physics *See* **Structural stability in physics, (80j:00017)**

Topological concepts in physics *See* **Structural stability in physics, (80j:00017)**
Tübingen *See* **Structural stability in physics, (80j:00017)**

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Statistical physics *See* **Path integrals and their applications in quantum, statistical, and solid state physics, 80c:82019** *and* **Monte Carlo methods in statistical physics, 80j:82010**

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Ivanov, A. I. (*with* Lomakin, G. S.; Ponomarev, O. A.) Investigation of systems with quadratic interaction by the method of functional derivatives. (Russian. English summary) **(80m:81120)**
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Abraham, Farid F. On the thermodynamics, structure and phase stability of the nonuniform fluid state. **80h:82016**
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Aubry, Serge The new concept of transitions by breaking of analyticity in a crystallographic model. **80d:82034**
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82A45 Plasma

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82A50 Liquids

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82A60 Crystals

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Aminova, A. V. Concircular vector fields and group symmetries in worlds of constant curvature. (Russian) **80a:83010**

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Arcidiacono, Giuseppe The de Sitter universe and "projective" mechanics. (Italian. English summary) **80j:83008**
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Singh, T. (*with* Yadav, R. B. S.) Some exact solutions of charged fluid spheres in Einstein-Cartan theory. **80c:83015a**
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Chaljub-Simon, Alice (*with* Choquet-Bruhat, Yvonne) Solutions asymptotiquement euclidiennes de l'équation de Lichnerowicz. (English summary) **(80b:58022)**
Choquet-Bruhat, Yvonne *See* **Chaljub-Simon, Alice, (80b:58022)**
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83C25 Approximation procedures, weak fields

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Smalley, Larry L. Post-Newtonian approximation of the Poincaré gauge theory of gravitation. 80k:83016
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Fischetti, M. V. (*with* Hartle, J. B.; Hu, B. L.) Quantum effects in the early universe. I. Influence of trace anomalies on homogeneous, isotropic, classical geometries. (80k:83006a)
Hartle, J. B. *See* Fischetti, M. V.; et al., (80k:83006a)
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Ward, J. P. Interpretation of global integrability conditions for stationary Einstein-Maxwell equations. **80j:83030**

Secondary classifications:

Lisiecki, W. (*with* Odzijewicz, A.) Twistor flag spaces as phase spaces of conformal particles. **(80k:58052)**

Ne'eman, Yuval (*with* Regge, T.) Gauge theory of gravity and supergravity on a group manifold. **(80c:17005)**

Odzijewicz, A. *See* Lisiecki, W., **(80k:58052)**

Regge, T. *See* Ne'eman, Yuval, **(80c:17005)**

Trautman, Andrzej The geometry of gauge fields. **(80k:81111)**

Weingard, Robert Some philosophical aspects of black holes. **(80k:83039)**

83E10 Asymmetric field theories

Bakler, N. S. Nonlinear de Sitter symmetry and restricted space-time regions in gravity and supergravity. **80f:83054**

Černikov, N. A. Born-Infeld equations in Einstein's unified field theory. (Russian) **80e:83035**

Christensen, S. M. (*with* Duff, M. J.) New gravitational index theorems and super theorems. **80g:83040**

Cosgrove, Christopher M. A new formulation of the field equations for the stationary axisymmetric vacuum gravitational field. I. General theory. **80e:83036a**
A new formulation of the field equations for the stationary axisymmetric vacuum gravitational field. II. Separable solutions. **80e:83036b**

De Sabbata, V. (*with* Gasperini, M.) External torsion and the electromagnetic force. **80a:83069**

Duff, M. J. *See* Christensen, S. M., **80g:83040**

Gasperini, M. *See* De Sabbata, V., **80a:83069**

Ikeda, Satoshi Some structurological remarks on the theory of fields in Finsler spaces. **80c:83050**

Kaminskas, V. A. (*with* Pupeikis, Rimantas) The accuracy of the estimation of the parameters of linear continuous dynamical systems by discrete observations. (Russian. Lithuanian and English summaries) **80d:83085**

Klotz, A. H. Conservation of energy in unified field theory. **80h:83033**

Onicescu, Octav (*with* Sofonea, Liviu) Un modèle géométrique à connexions non symétriques et quelques interprétations physiques. **80m:83043**

Pandey, S. N. Flat wave solutions of the nonsymmetric unified Finzi field theory. (Russian. English summary) **80e:83037**

Pupeikis, Rimantas *See* Kaminskas, V. A., **80d:83085**

Sofonea, Liviu *See* Onicescu, Octav, **80m:83043**

Secondary classifications:

Buchner, K. Affinzusammenhänge in symplektischen Räumen. **(80a:53013)**

83E15 Five- and higher-dimensional theories

Bampi, Franco (*with* Cianci, Roberto) Generalized axisymmetric spacetimes. **80i:83037**

Bunch, T. S. On renormalisation of the quantum stress tensor in curved space-time by dimensional regularisation. **80c:83051**

Cerveró, J. M. Time-dependent cosmological constant. **80d:83086**

Cianci, Roberto *See* Bampi, Franco, **80i:83037**

Ferrara, S. (*with* van Nieuwenhuizen, P.) Simplifications of Einstein supergravity. **80i:83038**

Forgács, P. (*with* Horváth, Zalán) On a static solution of the Einstein-Yang-Mills system in six dimensions. **80j:83031**

Gates, S. James, Jr. Superconformal transformations and six-dimensional spacetime. **80j:83032**

Horváth, Zalán *See* Forgács, P., **80j:83031**

Kopczyński, W. Metric-affine unification of gravity and gauge theories. **80f:83055**
McCarthy, Patrick J. Hyperfunctions and asymptotic symmetries. **80k:83034**
Ne'eman, Yuval Gravity is the gauge theory of the parallel-transport modification of the Poincaré group. **80d:83087**
van Nieuwenhuizen, P. *See* **Ferrara, S., 80i:83038**
Pigeaud, Pierre Mesonic scalar field in theory of Jordan-Thiry. **80a:83070**
Unified fields in pentadimensional theory. **80h:83035**
Siegel, Warren Unextended superfields in extended supersymmetry. **80f:83056**

Secondary classifications:

Lésauté, Bernard (*with* Marcilhacy, G.) Some new exact solutions of Einstein-Maxwell equations with axial symmetry. **(80i:83005)**
Marcilhacy, G. *See* **Lésauté, Bernard, (80i:83005)**
Scherk, J. (*with* Schwarz, John H.) How to get masses from extra dimensions. **(80d:81151)**
Schwarz, John H. *See* **Scherk, J., (80d:81151)**

83E99 None of the above, but in this section

Apsel, David Gravitational, electromagnetic, and nuclear theory. **80d:83088**
Bedding, S. (*with* Downes-Martin, S.; Taylor, John G.) A superfield analysis of supergravity. **80f:83057**
Bergmann, Peter G. Unitary field theory, geometrization of physics or physicalization of geometry? **80m:83044**
Downes-Martin, S. *See* **Bedding, S.; et al., 80f:83057**
Frank, Herbert ★Geochronometrie (ohne Instabilitäten). IV. **80h:83036**
van Holten, J. W. *See* **de Wit, Bernard, 80g:83041**
Ikeda, Satoshi Some physico-geometrical features underlying the theory of fields in Finsler spaces. **80e:83038**
Kalloš, R. E. Self-duality in superspace. **80m:83045**
Kasuya, Masahiro On a quantization of Einstein-Cartan's theory with anticommuting variables in Dirac's Hamiltonian formalism. (Italian and Russian summaries) **80h:83037**
Murphy, George L. On the strength of Einstein's unified field equations. **80k:83050**
Pisello, Daniel M. ★Gravitation, electromagnetism and quantized charge—the Einstein insight. **80h:83038**
Robinett, Loris Do tachyons travel more slowly than light? **80d:83089**
Stelle, K. S. (*with* West, P. C.) Algebraic derivation of $N=2$ supergravity constraints. **80m:83046**
Taylor, John G. Quantizing space-time. **80c:83052**
See also **Bedding, S.; et al., 80f:83057**
West, P. C. *See* **Stelle, K. S., 80m:83046**
de Wit, Bernard (*with* van Holten, J. W.) Multiplets of linearized SO(2) supergravity. **80g:83041**
Properties of SO(8) extended supergravity. **80i:83039**

Secondary classifications:

Akulov, V. P. (*with* Volkov, D. V.) Riemannian superspaces of minimal dimension. (Russian. English summary) **(80m:53036)**
Batchelor, Marjoric The structure of supermanifolds. **(80h:58002)**
Hawking, S. W. (*with* Pope, C. N.) Symmetry breaking by instantons in supergravity. **(80b:83027)**
Ikeda, Satoshi A geometrical consideration on the concepts of unified gauge field and supersymmetry. **(80c:81094)**
Pope, C. N. *See* **Hawking, S. W., (80b:83027)**
Ringwood, G. A. The fermion-boson correspondence is a Klein transformation. (Italian and Russian summaries) **(80m:81066)**
Volkov, D. V. *See* **Akulov, V. P., (80m:53036)**

83F05 Cosmology

Alvarez, E. (*with* Hakim, R.) Quark era in the primeval universe. **80k:83051**
Arcidiacono, Giuseppe The de Sitter universe and "projective relativity". (Italian. English summary) **80d:83090**
Barrow, John D. (*with* Matzner, Richard A.) Size of a bouncing mixmaster universe. **80k:83052**
Belinskiĭ, V. A. (*with* Nikomarov, E. S.; Halatnikov, I. M.) Investigation of the cosmological evolution of viscoelastic matter with causal thermodynamics. **80k:83053**
Bloomer, Iris A maximally symmetric space with torsion. **80d:83091**
Brill, Dieter R. Quantum cosmology. **80h:83039**
Brout, R. (*with* Englert, F.; Spindel, Ph.) Cosmological origin of the grand-unification mass scale. **80c:83053**
Caldirola, P. (*with* Pavšič, M.; Recami, Erasmo) Explaining the large numbers by a hierarchy of "universes": a unified theory of strong and gravitational interactions. (Italian and Russian summaries) **80c:83054**
Canuto, V. M. New trends in cosmology. **80a:83071**
Centrella, Joan (*with* Matzner, Richard A.) Plane-symmetric cosmologies. **80c:83055**
Chubotarin, C. D. (*with* Florea, G. C.) General relativistic plasma sphere with central gravitating mass. (Romanian summary) **80i:83040**
Cohen, Jeffrey M. *See* **Ftaclas, Christ, 80e:83040** *and* **Ftaclas, Christ, 80e:83041**
Collins, C. B. (*with* Ellis, G. F. R.) Singularities in Bianchi cosmologies. **80i:83041**
Craig, William Lane Whitrow and Popper on the impossibility of an infinite past. **80c:83056a**
Dehnen, H. *See* **Schäfer, G., 80k:83055**
Dirac, Paul A. M. Consequences of varying G. **80e:83039**
Doroškevič, A. G. (*with* Kotok, È. V.; Novikov, I. D.; Poljudov, A. N.; Sigov, Ju. S.; Šandarin, S. F.) A two-dimensional model for the formation of the large-scale structure of the universe. (Russian. English summary) **80c:83057**
Dunn, K. A. (*with* Tupper, B. O. J.) Type I, II, and III spatially homogeneous cosmologies with electromagnetic field. **80m:83047**
Ellis, G. F. R. Singularities in spatially homogeneous cosmologies. **80k:83054**
See also **Collins, C. B., 80i:83041**
Englert, F. *See* **Brout, R.; et al., 80c:83053**
Fil'čenkov, M. L. *See* **Gercenštein, M. E.; et al., 80d:83092**
Flores, G. C. *See* **Chubotariu, C. D., 80i:83040**
Ftaclas, Christ (*with* Cohen, Jeffrey M.) Charged homogeneous cosmologies. **80e:83040**
(*with* Cohen, Jeffrey M.) Tilted Bianchi type-III cosmologies. **80e:83041**
Gercenštein, M. E. (*with* Ingel', L. H.; Fil'čenkov, M. L.) On the problem of physical singularity in general relativity theory. (Russian) **80d:83092**
Hakim, R. *See* **Alvarez, E., 80k:83051**
Halatnikov, I. M. *See* **Belinskiĭ, V. A.; et al., 80k:83053**
Halpern, Leopold Gravitational theories generated by groups of transformations and Dirac's large number hypothesis. **80e:83042**
Ince, W. C. W. *See* **Wainwright, J.; et al., 80a:83075**
Ingel', L. H. *See* **Gercenštein, M. E.; et al., 80d:83092**
Islam, Jamal N. The long-term future of the universe. **80m:83048**
Jantzen, Robert T. The dynamical degrees of freedom in spatially homogeneous cosmology. **80j:83033**
Klotz, A. H. Geometry at infinity. **80d:83093**
New cosmology. **80j:83034**
Kotel'nikov, G. A. Realization of Dirac's hypothesis concerning the dependence of fundamental constants on time with a noninvariant speed of light. (Russian) **80j:83035**
Kotok, È. V. *See* **Doroškevič, A. G.; et al., 80c:83057**
Kunstatter, G. (*with* Moffat, J. W.; Savaria, P.) Cosmological solution of Bianchi type I in a new theory of gravitation. **80m:83049**
Lausberg, A. Distance functions for Coriolis interaction in Friedmann universes. **80m:83050**
MacCallum, Malcom Anisotropic cosmologies. **80c:83058**
Malin, S. (*with* Mansfield, V. N.) The coupling of matter and radiation in scale covariant cosmology. **80h:83040**
Mansfield, V. N. *See* **Malin, S., 80h:83040**
Marshman, B. J. *See* **Wainwright, J.; et al., 80a:83075**
Matzner, Richard A. *See* **Centrella, Joan, 80c:83055** *and* **Barrow, John D., 80k:83052**
Mignani, Roberto Instability of invariance groups of space-time, group contractions and models of universe. **80a:83072**
Moffat, J. W. *See* **Kunstatter, G.; et al., 80m:83049**
Nariai, Hidekazu On the creation of particles in a Robertson-Walker universe. **80j:83036**
Nikomarov, E. S. *See* **Belinskiĭ, V. A.; et al., 80k:83053**
Novikov, I. D. *See* **Doroškevič, A. G.; et al., 80c:83057**
Olivert Pellicer, Joaquin Conservation of material mass in the process of the expansion of the universe. (Spanish) **80g:83042**
Omarov, T. B. (*with* Puškarev, O. A.) On properties of inhomogeneous cosmological Tolman models. (Russian. English summary) **80e:83043**
Ostrowski, M. Dissipation in the Hagedorn early universe. **80m:83051**
Paolicchi, Paolo A differential equation for the classical collapse problem. **80a:83073**
Papapetrou, Achille Perturbations des solutions cosmologiques homogènes et isotropes. (Italian and English summaries) **80d:83094**
Pavšič, M. *See* **Caldirola, P.; et al., 80c:83054**
Pisello, Daniel M. *See* **de Ritis, R.; et al., 80m:83052**
Platania, G. *See* **de Ritis, R.; et al., 80m:83052**
Poljudov, A. N. *See* **Doroškevič, A. G.; et al., 80c:83057**
Prakash, S. (*with* Roy, S. R.) An anisotropic incoherent fluid cosmological model in general relativity. **80c:83059**
Puškarev, O. A. *See* **Omarov, T. B., 80e:83043**
Recami, Erasmo *See* **Caldirola, P.; et al., 80c:83054**
de Ritis, R. (*with* Pisello, Daniel M.; Platania, G.; Scudellaro, P.) A variational formulation for the Newtonian cosmology. (Italian summary) **80m:83052**
Rosen, Nathan Bimetric general relativity. **80i:83042**
Rosenbaum, Marcos (*with* Ryan, Michael P., Jr.; Shepley, L. C.) Space-time homogeneous models with torsion. **80d:83095**
Roy, S. R. *See* **Prakash, S., 80c:83059**
Ryan, Michael P., Jr. *See* **Rosenbaum, Marcos; et al., 80d:83095**
Šandarin, S. F. Evolution of perturbations in Friedman's models of the universe. (Russian. English summary) **80m:83053**
See also **Doroškevič, A. G.; et al., 80c:83057**
Savaria, P. *See* **Kunstatter, G.; et al., 80m:83049**
Schäfer, G. (*with* Dehnen, H.) Pair creation in cosmology when electromagnetic fields are present. **80k:83055**
Scudellaro, P. *See* **de Ritis, R.; et al., 80m:83052**
Selak, Stjepan A model of expanding universe with continuous mass-creation. **80f:83058**
Shepley, L. C. *See* **Rosenbaum, Marcos; et al., 80d:83095**
Sigov, Ju. S. *See* **Doroškevič, A. G.; et al., 80c:83057**
Spindel, Ph. *See* **Brout, R.; et al., 80c:83053**
Torretti, Roberto Mathematical theories and philosophical insights in cosmology. **80m:83054**
Treder, Hans-Jürgen On expanding Mach-Einstein universes. (German summary) **80i:83043**
Tupper, B. O. J. *See* **Dunn, K. A., 80m:83047**
Vaidya, P. C. An Einstein-Gödel universe. **80a:83074**
Wainwright, J. (*with* Ince, W. C. W.; Marshman, B. J.) Spatially homogeneous and inhomogeneous cosmologies with equation of state $p=\mu$. **80a:83075**
Weingard, Robert General relativity and the length of the past. **80c:83056b**
Zaharov, A. V. Influence of collisionless particles on the growth of gravitational perturbations in an isotropic universe. **80k:83056**

Secondary classifications:

Arcidiacono, Giuseppe Magnetohydrodynamics and cosmology. **(80a:83042)**

Cerveró, J. M. Time-dependent cosmological constant. (80d:83086)
Chitre, S. M. (*with* Narlikar, J. V.) Gravitational screens and superluminal separation in quasars. (80j:85006)
Clarke, C. J. S. Boundary definitions. (80j:83027)
Couch, W. E. (*with* Torrence, R. J.) A particular N-soliton solution and scalar wave equations. (80m:35064)
Dirac, Paul A. M. The large numbers hypothesis and the Einstein theory of gravitation. (80d:83073)
Dodson, Cristopher T. J. A new bundle completion for parallelizable space-times. (80j:83026)
Harvey, Alex Automorphisms of the Bianchi model Lie groups. (80g:22007)
Hosoya, Akio (*with* Uehara, Kunihiko) A baryon number generation mechanism in the expanding universe. (80k:81173)
Kolanov, T. S. Unstable systems of n gravitational bodies against the background of the expanding metagalaxy. (Russian. English summary) (80e:85004)
Narlikar, J. V. *See* Chitre, S. M., (80j:85006)
Novello, M. (*with* Salim, J. M.) Nonlinear photons in the universe. (80j:83029)
Salim, J. M. *See* Novello, M., (80j:83029)
Schmidt, B. G. Remarks about modifications of the b-boundary definition. (80j:83025)
Selak, Stjepan Interpretation of the metric tensor components based on possible astrophysical implications. (80d:85009)
Sibgatoulline, Nail Les effets acoustiques non linéaires dans l'univers en expansion. (English summary) (80m:85007)
Smith, R. W. The origins of the velocity-distance relation. (80j:01025)
Tipler, Frank J. Singularities and causality violation. (80j:83028)
Torrence, R. J. *See* Couch, W. E., (80m:35064)
Uehara, Kunihiko *See* Hosoya, Akio, (80k:81173)

85–XX ASTRONOMY AND ASTROPHYSICS {For celestial mechanics, see 70F15.}

85–01 Elementary exposition, textbooks

85–02 Advanced exposition (research surveys, monographs, etc.)

Hakim, R. Statistical mechanics of relativistic dense matter. 80d:85001

85–03 Historical (must also be assigned at least one classification number from Section 01)

Secondary classifications:

Aaboe, Asger (*with* Hamilton, Norman T.) Contributions to the study of Babylonian lunar theory. (80m:01005)
(Brahe, Tycho) *See* Wesley, Walter G., (80j:01008)
Brush, Stephen G. A geologist among astronomers: the rise and fall of the Chamberlin-Moulton cosmogony. I. (80d:01016a)
A geologist among astronomers: the rise and fall of the Chamberlin-Moulton cosmogony. II. (80d:01016b)
(Chamberlin, T. C.) *See* Brush, Stephen G., (80d:01016a) *and* Brush, Stephen G., (80d:01016b)
Hamilton, Norman T. *See* Aaboe, Asger, (80m:01005)
(Heraclides of Pontus) *See* van der Waerden, B. L., (80k:01004)
Jaki, Stanley L. Lambert and the watershed of cosmology. (80k:01027)
(Lambert, Johann Heinrich) *See* Jaki, Stanley L., (80k:01027)
(Moulton, F. R.) *See* Brush, Stephen G., (80d:01016a) *and* Brush, Stephen G., (80d:01016b)
Veselovskiĭ, I. N. Copernicus' first work in astronomy. (Russian) (80m:01020)
van der Waerden, B. L. On the motion of the planets according to Heraclides of Pontus. (80k:01004)
Wesley, Walter G. Tycho Brahe's solar observations. (80j:01008)

85–04 Explicit machine computation and programs (not the theory of computation or programming)

85–05 Experimental papers

85–06 Proceedings, conferences, etc.

(El'jasberg, P. E.) *See* Software for cosmic experiments, 80b:85001
Astrophysics *See* Dynamical systems and applications of Boltzmann equations to astrophysics, 80c:85001
Boltzmann equations *See* Dynamical systems and applications of Boltzmann equations to astrophysics, 80c:85001
Dynamical systems and applications of Boltzmann equations to astrophysics ★Dynamical systems and applications of Boltzmann equations to astrophysics. (Japanese) 80c:85001
Kyoto *See* Dynamical systems and applications of Boltzmann equations to astrophysics, 80c:85001
Software for cosmic experiments ★Математическое обеспечение космических экспериментов. (Russian) [Software for cosmic experiments] 80b:85001
Symposium:
Dynamical Systems and Applications of Boltzmann Equations to Astrophysics *See* Dynamical systems and applications of Boltzmann equations to astrophysics, 80c:85001

85A04 General

Secondary classifications:

Langebartel, Ray G. Partial separability of the Laplace equation in Roche coordinates. (80b:35033)

85A05 Galactic and stellar dynamics

Aarseth, Sverre J. (*with* Fall, S. Michael) Cosmological N-body simulations of galaxy merging. 80k:85001
Ardeljan, N. V. (*with* Popov, Ju. P.) Peculiarities of application of numerical methods in the problem of magneto-rotational explosion of a supernova. (Russian) 80m:85001
Aubin, Gilles Linear oscillations of 4th order of Jacobi ellipsoids. 80j:85001
Baranov, A. S. Near-circular motion of a star inside an axially symmetric heterogeneous ellipsoidal cluster. (Russian. English summary) 80a:85001
Periodic orbits of stars in axisymmetrical stellar systems. (Russian summary) 80k:85001
Bertin, Guiseppe (*with* Mark, James W.-K.) Local density-potential relation for spiral density waves in galaxies. 80c:85002
Cohn, Haldan Numerical integration of the Fokker-Planck equation and the evolution of star clusters. 80j:85002
Contopoulos, G. Integrable and stochastic behaviour in dynamical astronomy. 80k:85002
How far do bars extend? 80j:85003
Dai, De Cheng A review of the paper: "Properties of galactic shock waves in density wave theory" [Kexue Tongbao 22 (1977), no. 2, 79–83; MR 58 #9095] by Wen Rui Hu. (Chinese. English summary) 80h:85002
Fall, S. Michael *See* Aarseth, Sverre J., 80k:85001
Giaretta, D. L. (*with* ter Haar, D.) An extension of Hurwitz's criterion. I. Basic theory. 80i:85001a
(*with* ter Haar, D.) An extension of Hurwitz's criterion. II. Application to instabilities in the interstellar medium. 80i:85001b
Ginzburg, V. L. ★Theoretical physics and astrophysics. 80k:85003
Goldreich, Peter (*with* Tremaine, Scott) The excitation of density waves at the Lindblad and corotation resonances by an external potential. 80i:85002
ter Haar, D. *See* Giaretta, D. L., 80i:85001a; Giaretta, D. L., 80i:85001b *and* Ginzburg, V. L., 80k:85003
Herrera, L. Implications of general relativity in astrophysics. (Spanish. English summary) 80j:85004
Horwitz, Gerald *See* Ipser, James R., 80h:85003
(Hu, Wen Rui) *See* Dai, De Cheng, 80h:85002
Huang, Yin Liang *See* Peng, Qiu He, 80h:85004
van Humbeeck, Emile Oscillations spirales d'un disque galactique à distribution isotrope des dispersions de vitesse. 80g:85001
Ipser, James R. (*with* Horwitz, Gerald) The problem of maximizing functionals in Newtonian stellar dynamics, and its relation to thermodynamic and dynamical stability. 80h:85003
Knobloch, Edgar Tidal interaction of galaxies. 80b:85002
Kurth, Rudolf A global particular solution to the initial-value problems of stellar dynamics. 80f:85001
Lau, Y. Y. *See* Lin, C. C., 80e:85001
Lin, C. C. (*with* Lau, Y. Y.) Density wave theory of spiral structure of galaxies. 80e:85001
Mark, James W.-K. *See* Bertin, Guiseppe, 80c:85002
Nishimoto, Toshihiko Global dispersion relation for density waves in a certain simplified model of a disk shaped galaxy. 80b:85003
Peng, Qiu He (*with* Huang, Yin Liang) An asymptotic solution of Poisson's equation for a screw-shaped disturbance of density in a spiral galaxy of finite thickness. 80h:85004
Popov, Ju. P. *See* Ardeljan, N. V., 80m:85001
Saslaw, William C. Galaxy clustering and thermodynamics. 80j:85005
Schorr, B. The exact solution of the Burbidge-Prendergast integral equation for the mass density in galaxies. 80h:85005
Sen, K. K. *See* Wilson, S. J.; et al., 80m:85002
Tremaine, Scott *See* Goldreich, Peter, 80i:85002
Wan, F. S. *See* Wilson, S. J.; et al., 80m:85002
Wilson, S. J. (*with* Wan, F. S.; Sen, K. K.) On the moment method for radiative transfer in spherical dust shells with a core. 80m:85002

Secondary classifications:

Ciubotariu, C. D. (*with* Florea, G. C.) General relativistic plasma sphere with central gravitating mass. (Romanian summary) (80i:83040)
Florea, G. C. *See* Ciubotariu, C. D., (80i:83040)
Illner, Reinhard (*with* Neunzert, H.) An existence theorem for the unmodified Vlasov equation. (80j:35085)
Lerche, I. Kinematic diffusion of scalar quantities in turbulent velocity fields. (80m:76050)
Neunzert, H. *See* Illner, Reinhard, (80j:35085)
Spyrou, N. On the energy in relativistic stellar dynamics. (80d:83065b)
Yoder, Charles F. Diagrammatic theory of transition of pendulum like systems. (80b:70036)
Zel'dovič, Ja. B. One-dimensional motion of collisionless particles in gasdynamic approximation. (80d:82053)

85A10 Astronautics

Brjuno, A. D. Periodic orbits around the moon. (Russian. English summary) 80i:85003

85A15 Stellar structure

Bruer, H. The nonlinear dynamo problem: small oscillatory solutions in a strongly simplified model. (German summary) **80c:85003**

Comins, N. (*with* Schutz, Bernard F.) On the ergoregion instability. **80b:85004**

Denisik, S. A. *See* **Ferronskiĭ, V. I.; et al., 80d:85002** *and* **Ferronskiĭ, V. I.; et al., 80g:85002**

Dyson, Janet (*with* Schutz, Bernard F.) Perturbations and stability of rotating stars. I. Completeness of normal modes. **80k:85004a**

Ferronskiĭ, S. V. *See* **Ferronskiĭ, V. I.; et al., 80d:85002** *and* **Ferronskiĭ, V. I.; et al., 80g:85002**

Ferronskiĭ, V. I. (*with* Denisik, S. A.; Ferronskiĭ, S. V.) The solution of Jacobi's virial equation for celestial bodies. **80d:85002**

(*with* Denisik, S. A.; Ferronskiĭ, S. V.) The virial-based solution for the velocity of gravitational contraction of a gaseous sphere. (Russian summary) **80g:85002**

Gabriel, M. On the sufficient condition for dynamical stability of stellar configurations. (French summary) **80h:85006**

Properties of nonradial oscillations of spherical stars. (French summary) **80h:85007**

Goossens, M. Unrestricted second-order tensor virial equations for linear oscillations of magnetic configurations. **80b:85005**

Kuzahmedov, R. H. *See* **Seidov, Z. F., 80j:85007**

Mohan, C. (*with* Singh, K. R.) Nonradial oscillations of models of the generalized Roche series. **80j:85006**

Osipkov, L. P. Hydrodynamics of collisionless spherical stellar systems in a steady state. **80d:85003**

Saakjan, G. S. (*with* Sarkisjan, A. V.) Configurations of degenerated masses according to the bimetric theory of gravitation. (Russian. English summary) **80b:85006**

Sarkisjan, A. V. *See* **Saakjan, G. S., 80b:85006**

Schutz, Bernard F. Perturbations and stability of rotating stars. II. Properties of the eigenvectors and a variational principle. **80k:85004b**

Perturbations and stability of rotating stars. III. Perturbation theory for eigenvalues. **80k:85004c**

See also **Comins, N., 80b:85004** *and* **Dyson, Janet, 80k:85004a**

Seidov, Z. F. Padé approximations and the structure of white dwarfs. (Russian. Azerbaijani and English summaries) **80b:85007**

(*with* Kuzahmedov, R. H.) New solutions of the Lane-Emden equation. **80j:85007**

Singh, K. R. *See* **Mohan, C., 80j:85006**

Secondary classifications:

Das Gupta, S. R. A note on the *H*-functions of transfer problems in multiplying media. **(80d:82064)**

Gerlach, Ulrich H. (*with* Sengupta, Uday K.) Relativistic equations for aspherical gravitational collapse. **(80d:83010)**

Kislinger, M. B. *See* **Morley, P. D., (80c:82018)**

Morley, P. D. (*with* Kislinger, M. B.) Relativistic many-body theory, quantum chromodynamics and neutron stars/supernova. **(80c:82018)**

Molen Žerar, A. One-dimensional nonlinear motion in relativistic elasticity. (Russian) **(80d:73025)**

Sengupta, Uday K. *See* **Gerlach, Ulrich H., (80d:83010)**

Vaslu, Mircea Sur l'équation de dispersion d'un modèle de plasma composé. I. (Romanian summary) **(80h:82031)**

85A20 Stellar atmospheres

Barbosa, D. D. Dynamo action in a thin slab. **80b:85008**

Bel, N. *See* **Leroy, B., 80e:85003**

Blowmick, J. B. Some exact analytic self-similar solutions in the theory of flare-ups in novae. **80b:85009**

Das, Rabindra Nath Exact solution of the transport equation for radiative transfer with scattering albedo $\omega_0 < 1$ using the Laplace transform and the Wiener-Hopf technique and an expression of *H*-function. **80d:85004**

Exact solution of a problem in a stellar atmosphere using the Laplace transform and the Wiener-Hopf technique. **80h:85008**

Georgantopoulos, G. A. (*with* Nanousis, N. D.) Effects of mass transfer of the hydromagnetic free convective flow in the Stokes' problem. **80m:85003**

Kalra, G. L. *See* **Rajaram, R.; et al., 80m:85004**

Leroy, B. (*with* Bel, N.) Propagation of waves in an atmosphere in the presence of a magnetic field. I. The method. **80e:85003**

Matsumoto, Masamichi Functional equations in emitting atmospheres. **80a:85002**

Nanousis, N. D. *See* **Georgantopoulos, G. A., 80m:85003**

Rajaram, R. (*with* Kalra, G. L.; Tandon, J. N.) Stability of a collisionless contact discontinuity. **80m:85004**

Różyczka, M. (*with* Tscharnuter, W. M.; Winkler, K.-H.; Yorke, H. W.) Fragmentation of interstellar clouds: three-dimensional hydrodynamical calculations. **80m:85005**

Tandon, J. N. *See* **Rajaram, R.; et al., 80m:85004**

Tscharnuter, W. M. *See* **Różyczka, M.; et al., 80m:85005**

Winkler, K.-H. *See* **Różyczka, M.; et al., 80m:85005**

Yorke, H. W. *See* **Różyczka, M.; et al., 80m:85005**

85A25 Radiative transfer

Barman, S. K. *See* **Karanjai, S., 80i:85004**

Das, Rabindra Nath Exact solution of the transport equation for imperfect Rayleigh scattering in a semi-infinite atmosphere. **80h:85009**

Evangelidis, E. A. Plane of polarization rotation induced by a non-Minkowskian spacetime. **80c:85004**

Grinin, V. P. The transfer of resonance radiation in moving media with large-scale radiative coupling. (Russian. English summary) **80d:85005**

Ignat'ev, Ju. G. Gravitational thermal radiation of overdense stars. (Russian) **80b:85010**

Karanjai, S. (*with* Barman, S. K.) Solution of the equation of transfer for Rayleigh's phase function by the principle of invariance. **80i:85004**

Nižnik, L. P. (*with* Tarasov, V. G.) An inverse problem of scattering for a one-velocity transfer equation. (Russian) **80h:85010**

Siewert, C. E. On establishing a two-term scattering law in the theory of radiative transfer. (German summary) **80h:85011**

Tarasov, V. G. *See* **Nižnik, L. P., 80h:85010**

Secondary classifications:

Adel Sharaf, Mohamed General variational method for Milne's integral equation. **(80a:65276)**

Kuz'mina, M. G. (*with* Maslennikov, M. V.) Asymptotic characteristics of a polarized radiation field in the case of small absorption. (Russian) **(80g:82048)**

Maslennikov, M. V. *See* **Kuz'mina, M. G., (80g:82048)**

85A30 Hydrodynamic and hydromagnetic problems [See also 76Y05.]

Das, Rabindra Nath Exact solution of a problem in radiative transfer by the Laplace transform and the Wiener-Hopf technique when the incoming intensity at the surface is known. **80g:85003**

Garlick, A. R. The stability of magnetic interstellar clouds. **80d:85006**

Gerlah, N. I. (*with* Zueva, N. M.; Solov'ev, L. S.) The development of convective instability in a uniform magnetic field. (Russian. English summary) **80k:85005**

Marcus, Philip S. Stellar convection. I. Modal equations in spheres and spherical shells. **80d:85007**

Mattei, Ghilio The gravitational instability, in the sense of Jeans, of a dissipative plasma in the presence of the Hall effect. (Italian. English summary) **80g:85004**

Singh, J. B. *See* **Verma, B. G., 80g:85005**

Solov'ev, L. S. *See* **Gerlah, N. I.; et al., 80k:85005**

Verma, B. G. (*with* Singh, J. B.) Propagation of magnetogasdynamic spherical shock waves in an exponential medium. **80g:85005**

Zueva, N. M. *See* **Gerlah, N. I.; et al., 80k:85005**

Secondary classifications:

Date, T. H. *See* **Patil, N. P., (80c:76062)**

Patil, N. P. (*with* Date, T. H.) Definite material scheme in relativistic magnetohydrodynamics. **(80c:76062)**

Verma, B. G. (*with* Vishwakarma, J. P.) Axially symmetric explosion in magnetogasdynamics. **(80m:76056)**

Vishwakarma, J. P. *See* **Verma, B. G., (80m:76056)**

Yanowitch, Michael Vertically propagating hydromagnetic waves in an isothermal atmosphere with a horizontal magnetic field. **(80k:76081)**

85A35 Statistical astronomy

Das, Rabindra Nath Exact solution of the equation of radiative transfer for semi-infinite plane-parallel isotropic scattering atmosphere with scattering albedo $\omega_0 < 1$ by a method based on Laplace transform and Wiener-Hopf technique. **80i:85005**

Marchant, Alan B. *See* **Shapiro, Stuart L., 80d:85008**

Shapiro, Stuart L. (*with* Marchant, Alan B.) Star clusters containing massive, central black holes: Monte Carlo simulations in two-dimensional phase space. **80d:85008**

85A40 Cosmology {For relativistic cosmology, see 83F05.}

Davies, John Bruce Maximum information universe. **80k:85006**

Ènoev, T. M. *See* **Kozlov, N. N., 80k:85007**

Kožanov, T. S. Unstable systems of *n* gravitational bodies against the background of the expanding metagalaxy. (Russian. English summary) **80e:85004**

Kozlov, N. N. (*with* Ènoev, T. M.) The principle of virtual contacts. Method of calculating the process of accumulation of planets for a new cosmological model. (Russian. English summary) **80k:85007**

Segal, I. E. Some recent tests of the chronometric cosmology. **80m:85006**

Selak, Stjepan Interpretation of the metric tensor components based on possible astrophysical implications. **80d:85009**

Sibgatoulline, Nail Les effets acoustiques non linéaires dans l'univers en expansion. (English summary) **80m:85007**

Surdin, M. A further visit to the steady state universe. **80m:85008**

Secondary classifications:

Omarov, T. B. (*with* Pulkarev, O. A.) On properties of inhomogeneous cosmological Tolman models. (Russian. English summary) **(80e:83043)**

Pulkarev, O. A. *See* **Omarov, T. B., (80e:83043)**

Smith, R. W. The origins of the velocity-distance relation. **(80j:01025)**

85A45 Radio astronomy

85A99 Miscellaneous topics

Boltjanskiĭ, V. G. The maximum principle, black holes and quasars. (Russian) **80k:85008**

Chitre, S. M. (*with* Narlikar, J. V.) Gravitational screens and superluminal separation in quasars. **80j:85008**

DeTar, C. E. (*with* Low, F. E.) Variational principles for complex eigenvalues. **80d:85010**

Low, F. E. *See* **DeTar, C. E., 80d:85010**

Mandelbrot, Benoît Corrélations et texture dans un nouveau modèle d'univers

hiérarchisé, basé sur les ensembles trémas. **80e:85005**
Narlikar, J. V. *See* **Chitre, S. M., 80j:85008**

Secondary classifications:

Chandrasekhar, S. (*with* Xanthopoulos, Basilis C.) On the metric perturbations of the Reissner-Nordström black hole. **(80f:83043)**
Jefferys, William H. On the method of least squares. **(80k:65110)**
Lu, Sheng Dong *See* **Su, Ding Qiang; et al., (80k:78033)**
Su, Ding Qiang (*with* Wang, Ya Nan; Zhou, Bi Fang; Lu, Sheng Dong) An algorithm for finding the extreme values of a function of many variables and its application in the automatic design of astronomical optical systems. **(80k:78033)**
Wang, Ya Nan *See* **Su, Ding Qiang; et al., (80k:78033)**
Xanthopoulos, Basilis C. *See* **Chandrasekhar, S., (80f:83043)**
Zhou, Bi Fang *See* **Su, Ding Qiang; et al., (80k:78033)**

86–XX GEOPHYSICS [See also 73Nxx, 76U05, 76V05.]

86–01 Elementary exposition, textbooks

Mamulivili, A. I. ★Теория ошибок и метод наименьших квадратов. (Russian) [The theory of errors and the method of least squares] **80f:86001**

86–02 Advanced exposition (research surveys, monographs, etc.)

86–03 Historical (must also be assigned at least one classification number from Section 01)

Secondary classifications:

(Jones, Peter) *See* **Simojoki, Heikki, (80g:01015)**
Shimodaira, Kazuo Land surveying problems described in "Sanyo-ki". (Japanese) **(80k:01099)**
Simojoki, Heikki ★The history of geophysics in Finland 1828–1918. **(80g:01015)**

86–04 Explicit machine computation and programs (not the theory of computation or programming)

86–05 Experimental papers

86–06 Proceedings, conferences, etc.

Cupal, I. *See* **Nedoma, Jiří; et al., 80i:86001**
Nedoma, Jiří (*with* Rosa, K.; Cupal, I.) Geophysical problems and finite element and finite difference methods. **80i:86001**
Rosa, K. *See* **Nedoma, Jiří; et al., 80i:86001**

Secondary classifications:

(Lions, Jacques-Louis) *See* **Numerical methods in mathematical physics, geophysics and optimal control, (80e:65006)**
(Marčuk, G. I.) *See* **Numerical methods in mathematical physics, geophysics and optimal control, (80e:65006)**
(Nedoma, Jiří) *See* **Use of finite element method and finite difference method in geophysics, (80e:65007)**
Finite difference method *See* **Use of finite element method and finite difference method in geophysics, (80e:65007)**
Finite element methods *See* **Use of finite element method and finite difference method in geophysics, (80e:65007)**
Geophysics *See* **Numerical methods in mathematical physics, geophysics and optimal control, (80e:65006)** *and* **Use of finite element method and finite difference method in geophysics, (80e:65007)**
Lilice *See* **Use of finite element method and finite difference method in geophysics, (80e:65007)**
Mathematical physics *See* **Numerical methods in mathematical physics, geophysics and optimal control, (80e:65006)**
Novosibirsk *See* **Numerical methods in mathematical physics, geophysics and optimal control, (80e:65006)**
Numerical methods in mathematical physics, geophysics and optimal control
★Вычислительные методы в математической физике, геофизике и оптимальном управлении. (Russian) [Numerical methods in mathematical physics, geophysics and optimal control] **(80e:65006)**
Optimal control *See* **Numerical methods in mathematical physics, geophysics and optimal control, (80e:65006)**
Summer School:
Use of Finite Element Method and Finite Difference Method in Geophysics *See* **Use of finite element method and finite difference method in geophysics, (80e:65007)**
Symposium:
Numerical Methods in Mathematical Physics, Geophysics and Optimal Control *See* **Numerical methods in mathematical physics, geophysics and optimal control, (80e:65006)**
Use of finite element method and finite difference method in geophysics ★The use of finite element method and finite difference method in geophysics. **(80e:65007)**

86A04 General

86A05 Hydrology, hydrography, oceanography [See also 76B15, 76B20, 76B25, 76C15, 76E20, 76Q05, 76Rxx, 76U05.]

Belov, Ju. Ja. A quasilinear stationary problem of ocean dynamics. (Russian) **80i:86002**
A linear steady-state problem of ocean dynamics. (Russian) **80i:86003**
Beyer, Klaus (*with* Zeidler, Eberhard) Existenz- und Eindeutigkeitsbeweise für Gezeitenwellen mit allgemeinen Wirbelverteilungen. **80h:86001**
Boccotti, Paolo (*with* Scarsi, Giulio) The statistical properties of waves generated by wind. (Italian. English and French summaries) **80g:86001**
Bryant, P. J. Nonlinear wave groups in deep water. **80g:86002**
Bubnov, M. A. Approximate solution of dynamic problems of tides by finite element method. (Russian) **80j:86001**
Cameron, M. A. (*with* Hannan, E. J.) Measuring the properties of plane waves. **80c:86001**
Dacey, Michael F. Models of bed formation. **80k:86001**
Haidvogel, Dale B. (*with* Robinson, A. R.; Schulman, E. E.) The accuracy, efficiency, and stability of three numerical models with application to open ocean problems. **80m:86001**
Hannan, E. J. *See* **Cameron, M. A., 80c:86001**
Hasegawa, Ken'ichi *See* **Kawahara, Mutsuto; et al., 80g:86003**
Hidaka, Koji Nonlinear theory of an equatorial flow. I, II. **80m:86002**
Computation of three-dimensional ocean currents. I, II. **80m:86003**
Kataoka, Shinji *See* **Kawahara, Mutsuto; et al., 80g:86003**
Kawahara, Mutsuto (*with* Morihira, Michio; Kataoka, Shinji; Hasegawa, Ken'ichi) Periodic finite elements in two layer tidal flow. **80g:86003**
Klimok, V. I. *See* **Kočergin, V. P.; et al., 80b:86001**
Kočergin, V. P. (*with* Klimok, V. I.; Suhorukov, V. A.) The homogeneous layer of the ocean in the framework of "differential" models. (Russian) **80b:86001**
Kundzewicz, Zbigniew Mathematical models in hydrology. (Polish) **80f:86002**
LeBlond, Paul H. (*with* Mysak, Lawrence A.) Ocean waves: a survey of some recent results. **80g:86004**
Luskin, Mitchell Convergence of a finite element method for the approximation of normal modes of the oceans. **80i:86004**
Miropol'skiĭ, Ju. Z. Self-similar solutions of the Cauchy problem for internal waves in an unbounded fluid. **80g:86005**
Morihira, Michio *See* **Kawahara, Mutsuto; et al., 80g:86003**
Mysak, Lawrence A. *See* **LeBlond, Paul H., 80g:86004**
Robinson, A. R. *See* **Haidvogel, Dale B.; et al., 80m:86001**
Scarsi, Giulio *See* **Boccotti, Paolo, 80g:86001**
Schulman, E. E. *See* **Haidvogel, Dale B.; et al., 80m:86001**
Suhorukov, V. A. *See* **Kočergin, V. P.; et al., 80b:86001**
Zeidler, Eberhard *See* **Beyer, Klaus, 80h:86001**

Secondary classifications:

Koĭanov, A. I. A boundary value problem for a class of nonuniformly parabolic equations arising in the description of a water distillation process. (Russian) **(80d:35072)**
Le Provost, Christian (*with* Poncet, Alain) Finite element method for spectral modelling of tides. **(80i:65121)**
O'Kane, J. P. J. An estuarine water-quality model in an oscillating constant-volume reference frame. **(80b:76041)**
Poncet, Alain *See* **Le Provost, Christian, (80i:65121)**

86A10 Meteorology [See also 76Bxx, 76C15, 76E20, 76N15, 76Q05, 76Rxx, 76U05, 76V05.]

Arminjon, Paul The mathematical principles of numerical weather prediction. I. Derivation of the governing equations. **80m:86004**
Benney, D. J. Large amplitude Rossby waves. **80c:86001**
Cullen, M. J. P. The use of finite element methods in nonlinear evolutionary problems as met in weather forecasting. **80e:86002**
Gibbon, John (*with* James, I. N.; Moroz, I. M.) An example of soliton behaviour in a rotating baroclinic fluid. **80k:86002**
James, I. N. *See* **Gibbon, John; et al., 80k:86002**
Lindzen, Richard S. (*with* Tung, Ka Kit) Wave overreflection and shear instability. **80c:86002**
Marčuk, G. I. (*with* Penenko, V. V.) Application of optimization methods to the problem of mathematical simulation of atmospheric processes and environment. **80m:86005**
Moroz, I. M. *See* **Gibbon, John; et al., 80k:86002**
Oliger, Joseph Approximate methods for atmospheric and oceanographic circulation problems. **80k:86003**
Pedlosky, J. Finite-amplitude baroclinic waves in a continuous model of the atmosphere. **80m:86006**
Penenko, V. V. *See* **Marčuk, G. I., 80m:86005**
Pospíšil, P. Theoretical outline of a splitting method for the solution of total equations. (Russian) **80g:86006**
Saelid, Steinar Observability theorems for some linear hyperbolic systems. **80d:86001**
True, Hans Bifurcation of stationary solutions for the quasi-geostrophic equation with nonlinear boundary conditions. (Polish and Russian summaries) **80c:86003**
Tung, Ka Kit *See* **Lindzen, Richard S., 80c:86002**
Vitek, V. Remarks to the meteorological applications of finite difference methods. **80g:86007**

Secondary classifications:

Farrell, Brian *See* **Lindzen, Richard S.; et al., (80m:76043)**
Karpman, V. I. (*with* Maslov, E. M.) Evolution of solitons of the modified Korteweg-de Vries equation under the action of perturbations. (Russian) **(80c:81031)**
Lindzen, Richard S. (*with* Farrell, Brian; Tung, Ka Kit) The concept of wave overreflection and its application to baroclinic instability. **(80m:76043)**
Maslov, E. M. *See* **Karpman, V. I., (80c:81031)**
Mišin, I. V. (*with* Sušкevič, T. A.) Mathematical model of a space-frequency characteristic of an "underlying surface-atmosphere" system. (Russian. English summary) **(80m:78003)**

Saikevič, T. A. *See* **Milin, I. V., (80m:78003)**
Tung, Ka Kit *See* **Lindren, Richard S.; et al., (80m:76043)**

86A15 Seismology [See also 73Dxx, 73Fxx, 73Mxx, 73Nxx, 73Q05.]

Abramovici, Flavian The theory of leaking modes and its application to oceanic structures. **80k:86004**
Baimagambetov, U. *See* **Molotkov, L. A., 80g:86009**
Bamberger, A. (*with* Chavent, Guy; Lailly, P.) About the stability of the inverse problem in 1-D wave equations—applications to the interpretation of seismic profiles. **80b:86002**
Beil'kin, G. Ja. Explicit solution of the inverse kinematic problem in the non-Herglotz case. (Russian. English summary) **80g:86008**
Chavent, Guy *See* **Bamberger, A.; et al., 80b:86002**
Dergowski, S. M. *See* **Hosken, J. W. J., 80b:86003**
Hosken, J. W. J. (*with* Dergowski, S. M.) Model parameterizing and inversion in seismic reflection data processing. **80b:86003**
Kalačnikov, A. A. *See* **Osnač, A. I., 80l:86005**
Lailly, P. *See* **Bamberger, A.; et al., 80b:86002**
Lapwood, E. R. (*with* Sato, Ryosuke) The pattern of eigenfrequencies of overtones of torsional oscillations of a layered spherical shell. **80a:86001**
Mikaelenko, B. G. A method of solving dynamical problems of seismics for two-dimensionally inhomogeneous models of media. (Russian) **80e:86003**
Molotkov, L. A. (*with* Baĭmagambetov, U.) The study of wave propagation in layered transversal-isotropic elastic media. (Russian. English summary) **80g:86009**
Nolet, G. *See* **Vlaar, N. J., 80f:86003**
Osnač, A. I. (*with* Kalačnikov, A. A.) Equations of earth's torsional and spheroidal oscillations with account taken of nonhydrostatic initial stresses. (Russian) **80l:86005**
Sato, Ryosuke *See* **Lapwood, E. R., 80a:86001**
Vlaar, N. J. (*with* Nolet, G.) Seismic surface waves. **80f:86003**

Secondary classifications:

Bedding, R. J. (*with* Willis, J. R.) The elastodynamic Green's tensor for a half-space with an embedded anisotropic layer. **(80m:73027)**
Bernitein, I. N. (*with* Gerver, M. L.) A problem of integral geometry for a family of geodesics and an inverse kinematic seismics problem. (Russian) **(80g:53050)**
Crampin, S. *See* **Taylor, D. B., (80b:73014)**
Cupal, I. *See* **Nedoma, Jiří; et al., (80l:86001)**
Gerver, M. L. *See* **Bernitein, I. N., (80g:53050)**
Mainardi, F. (*with* Servizi, G.; Turchetti, G.) Application of Padé approximants to elastic wave propagation problems. **(80k:73020)**
(Molotkov, L. A.) *See* **Questions in the dynamical theory of seismic wave propagation, (80m:73033a)**
Nedoma, Jiří (*with* Rosa, K.; Cupal, I.) Geophysical problems and finite element and finite difference methods. **(80l:86001)**
Petrašen', G. I. Foundations of the mathematical theory of the propagation of elastic waves. (Russian) **(80m:73033b)**
Rosa, K. *See* **Nedoma, Jiří; et al., (80l:86001)**
Scheidl, W. (*with* Ziegler, F.) Interaction of a pulsed Rayleigh surface wave and a rigid cylindrical inclusion. **(80f:73030)**
Servizi, G. *See* **Mainardi, F.; et al., (80k:73020)**
Sharma, J. P. *See* **Viswanathan, K., (80h:73028)**
Taylor, D. B. (*with* Crampin, S.) Surface waves in anisotropic media: propagation in a homogeneous piezoelectric halfspace. **(80b:73014)**
Turchetti, G. *See* **Mainardi, F.; et al., (80k:73020)**
Viktorov, I. A. Types of acoustic surface waves in solids (review). **(80j:73015)**
Viswanathan, K. (*with* Sharma, J. P.) On the matched asymptotic solution of the diffraction of a plane elastic wave by a semi-infinite rigid boundary of finite width. **(80k:73028)**
(Volin, A. P.) *See* **Questions in the dynamical theory of seismic wave propagation, (80m:73033a)**
Willis, J. R. *See* **Bedding, R. J., (80m:73027)**
Ziegler, F. *See* **Scheidl, W., (80f:73030)**
Questions in the dynamical theory of seismic wave propagation ★Вопросы динамической теории распространения сейсмических волн. Вып. XVIII. (Russian) [Questions in the dynamical theory of seismic wave propagation. No. 18] **(80m:73033a)**
Wave propagation *See* **Questions in the dynamical theory of seismic wave propagation, (80m:73033a)**

86A20 Potentials, prospecting [See also 76S05, 76W05.]

Bančev, V. C. (*with* Georgiev, G.; Nedjalkov, I. P.) A numerical method of solving the inverse problem of potential theory. (Russian) **80d:86002**
Brovar, V. V. On the calculation of potential by the Stokes equation. **80a:86002**
Deprit, André Note on the summation of Legendre series. **80j:86002**
Georgiev, G. *See* **Bančev, V. C.; et al., 80d:86002**
Glasko, V. B. (*with* Strahov, V. N.) The uniqueness problem in some inverse problems of geophysics. (Russian) **80d:86003**
Mathematical models connected with inverse problems of geophysics, and Tihonov's regularization method. (Russian) **80d:86004**
Leigemann, D. Analytical collocation with kernel functions. **80k:86005**
Mignard, F. Multiple expansion of the tidal potential. **80a:86003**
Nedjalkov, I. P. *See* **Bančev, V. C.; et al., 80d:86002**
Strahov, V. N. The use of the methods of complex variable function theory in solving three-dimensional direct problems of gravimetry and magnetometry. (Russian) **80l:86006**
Solution of a direct two-dimensional gravimetry problem. (Russian) **80l:86007**
See also **Glasko, V. B., 80d:86003**
Tscherning, C. C. On the convergence of least squares collocation. (Italian summary) **80c:86004**

86A25 Geo-electricity and geomagnetism [See also 78A25.]

Dmitriev, V. I. Mathematical models in electromagnetic methods for investigating the Earth's structure. (Russian) **80d:86005**

Secondary classifications:

Belocerkovskiĭ, O. M. (*with* Mitnickiĭ, V. Ja.) Some exact solutions of the problem of a magnetic dipole surrounded by an infinitely conducting fluid. (Russian) **(80f:35016)**
Cupal, I. *See* **Nedoma, Jiří; et al., (80l:86001)**
Mitnickiĭ, V. Ja. *See* **Belocerkovskiĭ, O. M., (80f:35016)**
Nedoma, Jiří (*with* Rosa, K.; Cupal, I.) Geophysical problems and finite element and finite difference methods. **(80l:86001)**
Rosa, K. *See* **Nedoma, Jiří; et al., (80l:86001)**
Savin, M. G. ★Проблема калибровки Лоренца в анизотропных средах. (Russian) [The Lorentz gauge problem in anisotropic media] **(80k:78015)**

86A30 Geodesy, mapping problems

Balk, P. I. Automatization of the solution to the problems of concrete model analytic theory in gravitational potential problems. (Russian) **80f:86004**
Bjerhammar, Arne (*with* Svensson, Leif) The convergence of harmonic reduction to an internal sphere. **80m:86007**
Gerontopoulos, P. ★Molodensky's problem in the plane. **80c:86005**
Grafarend, E. (*with* Hauer, K.) The equilibrium figure of the earth. I. **80a:86004**
Hauer, K. *See* **Grafarend, E., 80a:86004**
Mašimov, M. M. ★Уравнивание геодезических сетей. (Russian) [Smoothing of geodesic nets] **80k:86006**
Petrovskaja, M. S. Solution of the geodetic boundary value problem. **80d:86006**
Sjöberg, Lars On the existence of solutions for the method of Bjerhammar in the continuous case. **80j:86003**
Integral formulas for heterogeneous data in physical geodesy. **80k:86007**
Starostenko, V. I. ★Устойчивые численные методы в задачах гравиметрии. (Russian) [Stable numerical methods in gravimetry problems] **80d:86007**
Sünkel, Hans ★Approximation of covariance functions by non-positive definite functions. **80b:86004**
Svensson, Leif *See* **Bjerhammar, Arne, 80m:86007**
Zidarov, D. P. A direct solution of the inverse gravimetric problem at a given law of the density-trap method. **80f:86005**

Secondary classifications:

Miropol'skiĭ, Ju. Z. Self-similar solutions of the Cauchy problem for internal waves in an unbounded fluid. **(80g:86005)**

86A35 Atmospheric physics [See also 76C15, 76C20, 76E20, 76Rxx, 76U05, 76V05.]

Artjunjan, G. A. *See* **Nikogosjan, A. G., 80l:86009**
Barsikov, A. S. (*with* Dmitriev, V. I.) The solvability of inverse problems of the vertical sounding of the ionosphere in a layered model. (Russian) **80d:86008**
Bois, P. A. Effets dissipatifs dans les écoulements atmosphériques. I. Amortissement visqueux des ondes de gravité. (English summary) **80f:86006**
Effets dissipatifs dans les écoulements atmosphériques. II. Instabilité linéaire convective dans l'atmosphère. (English summary) **80m:86008**
Cahalan, Robert F. (*with* North, Gerald R.) A stability theorem for energy-balance climate models. **80k:86008**
Castro, F. M. de Oliveira On the diffusion-equations of nucleons and charged pions in the atmosphere. **80f:86007**
Chen, Zhe Ming On several analytical theoretical problems of the structure and dynamics of the upper atmosphere. I. Green's functions, differential operator of tides, three-dimensional stratified model and diffusion waves of the thermosphere. **80b:86005**
Das, A. C. *See* **Jain, R. K., 80h:86003**
Das, Rabindra Nath Exact solution of the problem of diffuse reflection and transmission in Rayleigh scattering by use of the Laplace transform and the theory of linear singular operators. **80b:86006**
Dmitriev, V. I. *See* **Barsikov, A. S., 80d:86008**
Dutton, John A. *See* **Vickroy, James G., 80e:86004**
Eltayeb, I. A. (*with* Kandaswamy, P.) Critical levels in a vertically rotating compressible atmosphere. **80l:86008**
Galin, M. B. A twelve-component model of the atmospheric general circulation. **80h:86002**
Golicyn, G. S. *See* **Mohov, I. I., 80d:86010**
Jain, R. K. (*with* Das, A. C.) Nonlinear Rayleigh-Taylor instability in partially ionized plasma and the equatorial spread*F*. **80h:86003**
Judin, M. S. *See* **Marčuk, G. I., 80d:86009**
Kandaswamy, P. *See* **Eltayeb, I. A., 80l:86008**
Kendall, William M. Unsteady two-cell similarity solution to a convective atmospheric vortex model. (Russian summary) **80k:86009**
Marčuk, G. I. (*with* Judin, M. S.) On the use of a priori information with the aid of conjugate equations. (Russian) **80d:86009**
Mohov, I. I. (*with* Golicyn, G. S.) Variational estimate of climate system stability in elementary models. **80d:86010**
Nikogosjan, A. G. (*with* Artjunjan, G. A.) The radiation field in a semi-infinite atmosphere containing energy sources. (Russian) **80l:86009**
North, Gerald R. *See* **Cahalan, Robert F., 80k:86008**
Rudraiah, N. (*with* Venkatachalappa, M.) Propagation of hydromagnetic waves in a perfectly conducting non-isothermal atmosphere in the presence of rotation and a variable magnetic field. **80d:86011**
Sharma, J. P. On plane-symmetric polytropes. **80c:86006**

Smilevič, T. A. Calculation of strong anisotropy of scattering in problems of radiation propagation with a unidirectional source. (Russian) **80k:86010**
Uhlig, Andreas Numerische Vergleiche zwischen stochastischer Regularisierung und Projektionsverfahren am Beispiel der Rekonstruktion vertikaler Temperaturprofile der Erdatmosphäre auf der Grundlage von Satellitenmessdaten. **80c:86007**
Venkatachalappa, M. *See* **Rudraiah, N., 80d:86011**
Vickroy, James G. (*with* Dutton, John A.) Bifurcation and catastrophe in a simple, forced, dissipative quasi-geostrophic flow. **80e:86004**
Wiin-Nielsen, A. Steady states and stability properties of a low-order barotropic system with forcing and dissipation. (Russian summary) **80k:86011**
Williams, M. M. R. The statistical distribution of coagulating droplets. **80c:86008**
Principes physiques et mathématiques de la télédétection ★Principes physiques et mathématiques de la télédétection. **80k:86012**
Remote sensing *See* **Principes physiques et mathématiques de la télédétection, 80k:86012**
Space physics *See* **Principes physiques et mathématiques de la télédétection, 80k:86012**
Strasbourg *See* **Principes physiques et mathématiques de la télédétection, 80k:86012**
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Space Physics *See* **Principes physiques et mathématiques de la télédétection, 80k:86012**

Secondary classifications:

Aksenov, V. P. (*with* Mironov, V. L.) The effect of backscattering amplification under the conditions of strong intensity fluctuations. (Russian. English summary) **(80c:78014)**
Mironov, V. L. *See* **Aksenov, V. P., (80c:78014)**
Schlesinger, Robert E. Nonlinear eddy-viscosity turbulence parameterization in anelastic three-dimensional flow: some mathematical aspects. **(80f:76022)**

86A99 Miscellaneous topics

Baĭmuhametov, A. A. *See* **Eržanov, Ž. S.; et al., 80d:86012**
Courrège, Philippe (*with* Lasry, Jean Michel) Contribution à l'étude des champs d'héliostats des centrales solaires à concentration ponctuelle. **80h:86004**
Eržanov, Ž. S. (*with* Kalybaev, A. A.; Baĭmuhametov, A. A.) Rotation of a dynamically symmetric body and sphere separated by a spherical layer of a viscous fluid. (Russian. Kazakh summary) **80d:86012**
Halfin, L. A. The statistical approach to the solution of ill-posed problems of geophysics. (Russian. English summary) **80h:86005**
Kalybaev, A. A. *See* **Eržanov, Ž. S.; et al., 80d:86012**
Kubo, Yoshio A core-mantle interaction in the rotation of the earth. **80h:86006**
Lasry, Jean Michel *See* **Courrège, Philippe, 80h:86004**
Ljubimova, E. A. *See* **Vlasov, V. K., 80b:86007**
Merilees, Philip E. On spectral multiplication as viewed in physical space. (Russian summary) **80m:86009**
Vlasov, V. K. (*with* Ljubimova, E. A.) Mathematical models in geothermy. (Russian) **80b:86007**

Secondary classifications:

Rendu, Jean-Michel M. Normal and lognormal estimation. **(80h:62022)**

90–XX ECONOMICS, OPERATIONS RESEARCH, PROGRAMMING, GAMES

Secondary classifications:

Allen, Arnold O. ★Probability, statistics, and queueing theory. **(80e:60103)**

90–01 Elementary exposition, textbooks

Chachra, Vinod (*with* Ghare, Prabhakar M.; Moore, James M.) ★Applications of graph theory algorithms. **80f:90001**
Danilin, Ju. M. *See* **Pšeničnyĭ, B. N., 80g:90001**
(Fishburn, Peter C.) *See* **Mirkin, B. G., 80f:90004**
Ghare, Prabhakar M. *See* **Chachra, Vinod; et al., 80f:90001**
Harvey, Charles M. ★Operations research. **80h:90001**
Hässig, Kurt ★Graphentheoretische Methoden des Operations Research. **80f:90002**
Horst, Reiner ★Nichtlineare Optimierung. **80f:90003**
Kemp, Murray C. (*with* Kimura, Yoshio) ★Introduction to mathematical economics. **80a:90001**
Kimura, Yoshio *See* **Kemp, Murray C., 80a:90001**
Mirkin, B. G. ★Group choice. **80f:90004**
Moore, James M. *See* **Chachra, Vinod; et al., 80f:90001**
(Oliker, Yelena) *See* **Mirkin, B. G., 80f:90004**
Pšeničnyĭ, B. N. (*with* Danilin, Ju. M.) ★Numerical methods in extremal problems. **80g:90001**
Rauhut, Burkhard (*with* Schmitz, Norbert; Zachow, Ernst-Wilhelm) ★Spieltheorie. **80j:90001**
Schmitz, Norbert *See* **Rauhut, Burkhard; et al., 80j:90001**
Thie, Paul R. ★An introduction to linear programming and game theory. **80f:90005**
Zachow, Ernst-Wilhelm *See* **Rauhut, Burkhard; et al., 80j:90001**
(Žltomirskiĭ, V.) *See* **Pšeničnyĭ, B. N.; et al., 80g:90001**

Secondary classifications:

Craven, Bruce Desmond ★Mathematical programming and control theory. **(80d:93001)**
Daniels, Richard W. ★An introduction to numerical methods and optimization techniques. **(80c:65001)**
(Elmaghraby, Salah E.) *See* **Handbook: Operations research, (80a:90047)**
Kapur, J. N. Optimization in mathematics, statistics, economics, operations research, science and technology. **(80h:00003)**
Minieka, Edward ★Optimization algorithms for networks and graphs. **(80a:90066)**
(Moder, Joseph J.) *See* **Handbook: Operations research, (80a:90047)**
Handbook:
Operations research ★Handbook of operations research. **(80a:90047)**
Mathematik für Ingenieure, Naturwissenschaftler, Ökonomen, Landwirte ★Mathematik für Ingenieure, Naturwissenschaftler, Ökonomen, Landwirte. Bände 1–21/2. **(80d:00033)**
Operations research *See* **Handbook: Operations research, (80a:90047)**

90–02 Advanced exposition (research surveys, monographs, etc.)

Achilles, A. (*with* Elster, Karl-Heinz; Nehse, Reinhard) Bibliographie zur Vektoroptimierung (Theorie und Anwendungen). **80h:90002**
Aubin, Jean-Pierre Analyse fonctionnelle non linéaire et applications à l'équilibre économique. **80e:90001**
Chattergy, R. *See* **Wismer, David A., 80h:90004**
Davydov, È. G. ★Методы и модели теории антагонистических игр. (Russian) [Methods and models of the theory of antagonistic games] **80k:90003**
Elster, Karl-Heinz *See* **Achilles, A.; et al., 80h:90002**
Fararo, Thomas J. An introduction to catastrophes. **80b:90001**
Germeier, Ju. B. ★Игры с непротивоположными интересами. (Russian) [Games with nonconflicting interests] **80e:90002**
Łoś, Jerzy Mathematical theory of von Neumann economic models. Report on recent results. **80i:90001**
Nehse, Reinhard *See* **Achilles, A.; et al., 80h:90002**
Wismer, David A. (*with* Chattergy, R.) ★Introduction to nonlinear optimization: a problem solving approach. **80h:90004**
Bibliography:
Vector optimization *See* **Achilles, A.; et al., 80h:90002**

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Abadie, Jean M. Advances in nonlinear programming. (French summary) **(80c:90129)**
Elster, Karl-Heinz On the theory of nonconvex optimization problems. **(80h:90123)**
Murata, Yasuo ★Mathematics for stability and optimization of economic systems. **(80d:90027)**
Pontrjagin, L. S. Optimization and differential games. (Russian) **(80b:49001)**
Vorob'ev, Nikolaĭ Nikolaevič Noncooperative games. (Russian) **(80c:90162)**
See also **Game theory questions of decision making, (80d:90092)**
Decision making *See* **Game theory questions of decision making, (80d:90092)**
Game theory questions of decision making ★Теоретико-игровые вопросы принятия решений. (Russian) [Game theory questions of decision making] **(80d:90092)**

90–03 Historical (must also be assigned at least one classification number from Section 01)

Secondary classifications:

(Edgeworth, Francis Ysidro) *See* **Wall, Byron E., (80a:01023)**
Wall, Byron E. F. Y. Edgeworth's mathematical ethics. Greatest happiness with the calculus of variations. **(80a:01023)**

90–04 Explicit machine computation and programs (not the theory of computation or programming)

Secondary classifications:

Lasdon, Leon S. *See* **Waren, Allan D., (80b:90122)**
Lauričre, Jean-Louis A language and a program for stating and solving combinatorial problems. **(80a:68075)**
Ula, Nurul Analogue computer solution of certain zero-one integer programming problems. **(80g:90086)**
Waren, Allan D. (*with* Lasdon, Leon S.) The status of nonlinear programming software. **(80b:90122)**

90–06 Proceedings, conferences, etc.

(Brock, Horace W.) *See* **Game theory, social choice, and ethics, 80j:90004a** *and* **Game theory, social choice and ethics, 80j:90004b**
(Elton, E. J.) *See* **Portfolio theory, 25 years after, 80k:90001**
(Ermol'ev, Ju. M.) *See* **Mathematical methods in operations research and reliability theory, 80m:90002**
(Fedorenko, N. P.) *See* **Mathematical methods of solution of economic problems, 80m:90003**
(Gol'štein, E. G.) *See* **Mathematical methods of solution of economic problems, 80m:90003**
(Gruber, M. J.) *See* **Portfolio theory, 25 years after, 80k:90001**
(Haley, K. B.) *See* **Operational research, 80a:90003**
(Hettich, R.) *See* **Semi-infinite programming, 80j:90005**
Hoffmann, A. (*with* Schade, L.) Bericht über die Arbeitstagung "Mathematische Optimierung". Abstracts. **80c:90001**
(Kovalenko, I. M.) *See* **Mathematical methods in operations research and reliability theory, 80m:90002**
(Liu, Pan Tai) *See* **Differential games and control theory, 80d:90001; Differential games and control theory, 80f:90006a** *and* **Control theory in mathematical economics, 80f:90006b**
(Lommatzsch, K.) *See* **Fortschritte in der mathematischen Optimierung, 80d:90003**
(Markowitz, Harry) *See* **Portfolio theory, 25 years after, 80k:90001**
(Meerov, M. V.) *See* **Investigation and optimization of multiply connected systems, 80m:90001**
(Moeschlin, Otto) *See* **Game theory and related topics, 80j:90003**

(Nazyrova, V. P.) *See* Mathematical methods of cybernetics, 80d:00013
(Nožička, František) *See* Fortschritte in der mathematischen Optimierung, 80d:90003
(Oettli, Karl Werner) *See* Symposium: Operations Research, 80d:90004a; Symposium: Operations Research, 80d:90004b; Symposium: Operations Research, 80d:90004c; Symposium: Operations Research, 80d:90004d *and* Symposium: Operations Research, 80d:90004e
(Pallaschke, Diethard) *See* Game theory and related topics, 80j:90003
(Puterman, Martin L.) *See* Dynamic programming and its applications, 80d:90002
(Rastrigin, L. A.) *See* Adaptation problems in technical systems, 80a:90002
(Roxin, Emilio O.) *See* Differential games and control theory, 80d:90001 *and* Differential games and control theory, 80f:90006a
(Rvačov, V. L.) *See* Mathematical methods of cybernetics, 80d:00013
Schade, L. *See* Hoffmann, A., 80c:90001
(Steffens, Franz) *See* Symposium: Operations Research, 80d:90004a; Symposium: Operations Research, 80d:90004b; Symposium: Operations Research, 80d:90004c; Symposium: Operations Research, 80d:90004d *and* Symposium: Operations Research, 80d:90004e
(Sternberg, Robert L.) *See* Differential games and control theory, 80d:90001
(Sutinen, Jon G.) *See* Control theory in mathematical economics, 80f:90006b
(Zambickiĭ, D. K.) *See* Mathematical modeling of economic systems, 80m:90004
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Bad Honnef *See* Semi-infinite programming, 80j:90005
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Bonn *See* Game theory and related topics, 80j:90003
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  Dynamic Programming and its Applications *See* Dynamic programming and its applications, 80d:90002
  Kingston, Differential Games and Control Theory *See* Differential games and control theory, 80d:90001; Differential games and control theory, 80f:90006a *and* Control theory in mathematical economics, 80f:90006b
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  ★Differential games and control theory. III. 80f:90006a
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  ★Game theory, social choice, and ethics. Part II. 80j:90004b
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  Operational Research *See* Operational research, 80a:90003
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Kingston, R.I. *See* Differential games and control theory, 80d:90001; Differential games and control theory, 80f:90006a *and* Control theory in mathematical economics, 80f:90006b
Mannheim *See* Symposium: Operations Research, 80d:90004b; Symposium: Operations Research, 80d:90004c; Symposium: Operations Research, 80d:90004d *and* Symposium: Operations Research, 80d:90004e
Mathematical economics *See* Symposium: Operations Research, 80d:90004d *and* Control theory in mathematical economics, 80f:90006b
Mathematical methods of cybernetics ★Математические методы кибернетики. (Russian) [Mathematical methods of cybernetics] 80d:00013
Mathematical methods in operations research and reliability theory ★Математические методы исследования операций и теории надежности. (Russian) [Mathematical methods in operations research and reliability theory] 80m:90002
Mathematical methods of solution of economic problems ★Математические методы решения Экономических задач. Сб. 8. (Russian) [Mathematical methods of solution of economic problems. No. 8] 80m:90003
Mathematical modeling of economic systems ★Математическое моделирование экономических систем. (Russian) [Mathematical modeling of economic systems] 80m:90004
Mathematical optimization *See* Hoffmann, A.; et al., 80c:90001 *and* Fortschritte in der mathematischen Optimierung, 80d:90003
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Operational research ★Operational research '78. 80a:90003
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Operations Research Verfahren ★Operations Research Verfahren, 30. 80f:90007
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  Game Theory and Related Topics *See* Game theory and related topics, 80j:90003
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Statistics *See* Symposium: Operations Research, 80d:90004c
Symposium:
  Operations Research ★Third Symposium on Operations Research. Section 1. Continuous Optimization. 80d:90004a
    ★Third Symposium on Operations Research. Section 2. Discrete Optimization. 80d:90004b
    ★Third Symposium on Operations Research. Section 3. Applied Stochastics, Statistics and Econometrics. 80d:90004c
    ★Third Symposium on Operations Research. Section 4. Mathematical Economics. 80d:90004d
    ★Third Symposium on Operations Research. Section 5. Applications. 80d:90004e
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  Fortschritte in der Mathematischen Optimierung *See* Fortschritte in der mathematischen Optimierung, 80d:90003
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  Mathematical Optimization *See* Hoffmann, A.; et al., 80c:90001
  Semi-infinite Programming *See* Semi-infinite programming, 80j:90005

Secondary classifications:

(Balinski, M. L.) *See* Polyhedral combinatorics, (80a:05003)
(Benssousan, Alain) *See* Symposium: Systems Optimization and Analysis, (80m:49002)
(Charnes, Abraham) *See* Extremal methods and systems analysis, (80m:00011)
(Fiacco, Anthony V.) *See* Extremal methods and systems analysis, (80m:00011)
(Fulkerson, Delbert Ray) *See* Polyhedral combinatorics, (80a:05003)
(Gupta, Madan M.) *See* Advances in fuzzy set theory and applications, (80k:00006)
(Hoffman, A. J.) *See* Polyhedral combinatorics, (80a:05003)
(Kortanek, Kenneth O.) *See* Extremal methods and systems analysis, (80m:00011)
(Lemaréchal, Claude) *See* Nonsmooth optimization, (80d:49002)
(Lions, Jacques-Louis) *See* Symposium: Systems Optimization and Analysis, (80m:49002)
(Mifflin, Robert) *See* Nonsmooth optimization, (80d:49002)
(Ragade, Rammohan K.) *See* Advances in fuzzy set theory and applications, (80k:00006)
(Rose, J.) *See* Current topics in cybernetics and systems, (80a:68001)
(Yager, Ronald R.) *See* Advances in fuzzy set theory and applications, (80k:00006)
Actes:
  Colloque International DGRST-CNRS ★Actes du Colloque International DGRST-CNRS. (80j:62001)
Advances in fuzzy set theory and applications ★Advances in fuzzy set theory and applications. (80k:00006)
Amsterdam *See* Current topics in cybernetics and systems, (80a:68001)
Austin, Tex. *See* Extremal methods and systems analysis, (80m:00011)
Birthday:
  Charnes, Abraham *See* Extremal methods and systems analysis, (80m:00011)
Colloque:
  DGRST-CNRS *See* Actes: Colloque International DGRST-CNRS, (80j:62001)
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Conference:
  Prague Information Theory, Statistical Decision Functions, Random Processes *See* Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80d:62004a) *and* Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80d:62004b)
Congress:
  Cybernetics and Systems *See* Current topics in cybernetics and systems, (80a:68001)
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Random processes *See* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80d:62004a)** *and* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80d:62004b)**
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Statistical decision functions *See* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80d:62004a)** *and* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80d:62004b)**
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Chipman, John S. (*with* Moore, James C.) The new welfare economics 1939–1974. (80d:90012)
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90A09 Portfolio theory and financial economics

90A10 Utility theory

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Brown, Stephen J. The portfolio choice problem: comparison of certainty equivalence and optimal Bayes portfolios. 80a:90016
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Cooter, Robert A new expenditure function. 80m:90020
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90A11 Production models

Al-Ayat, Rokaya (*with* Färe, Rolf) On the existence of joint production functions. **80m:90022**
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(Krelle, Wilhelm) *See* **Stehling, Frank, 80b:90013**
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Mednicki, V. G. A general model of production and exchange (economic interpretation and criterion questions). (Russian) **80f:90022**
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Senbet, Lemma W. On the theory of the firm under uncertainty and the cost of capital. **80d:90014**
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Venezia, Itzhak Optimal aggregation of input-output coefficients—a decision theoretic approach. **80m:90024**
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Bol, Georg Zur Darstellbarkeit der technischen Möglichkeiten in der Mehr-Güter-Produktion durch Produktionsgleichungen. **(80b:90072)**
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Deuermeyer, Bryan L. (*with* Pierskalla, William P.) A by-product production system with an alternative. **(80a:90076)**
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90A12 Price theory

Anderson, Ronald W. Perfect price aggregation and empirical demand analysis. **80h:90024**
Baumol, William J. (*with* Fischer, Dietrich; ten Raa, Thijs) The price-iso return locus and rational rate regulation. **80j:90026**
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Finsinger, Jörg *See* **Vogelsang, Ingo, 80c:90012**
Fischer, Dietrich *See* **Baumol, William J.; et al., 80j:90026**
Funke, Helmut (*with* Voeller, J.) Characterization of Fisher's "ideal index" by three reversal tests—a note. **80g:90016**
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Harrison, J. Michael (*with* Kreps, David M.) Martingales and arbitrage in multiperiod securities markets. **80h:90025**
Kreps, David M. *See* **Harrison, J. Michael, 80h:90025**
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Sharkey, William W. (*with* Telser, Lester G.) Supportable cost functions for the multiproduct firm. **80k:90007**
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Turnovsky, Stephen J. (*with* Shalit, Haim; Schmitz, Andrew) Consumer's surplus, price instability, and consumer welfare. **80m:90025**
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Cortey-Dumont, Philippe Contribution à l'étude de l'approximation par la méthode des éléments finis d'inéquations quasi-variationnelles elliptiques. (English summary) **(80c:65202)**
Deshmukh, Sudhakar D. (*with* Winston, Wayne) Stochastic control of competition through prices. **(80g:90003)**
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90A14 Equilibrium theory

(Arrow, Kenneth J.) *See* **Kalman, Peter J., 80d:90018**
Asmuth, Richard (*with* Eaves, B. Curtis; Peterson, Elmor L.) Computing economic equilibria on affine networks with Lemke's algorithm. **80e:90021**
Aumann, Robert J. On the rate of convergence of the core. **80j:90029**
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Balasko, Yves The behavior of economic equilibria: a catastrophe theory approach. **80b:90016**
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Eaves, B. Curtis *See* **Asmuth, Richard; et al., 80e:90021**

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(*with* Hildenbrand, Werner) On Keynesian equilibria with unemployment and quantity rationing. **80b:90023**

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Madden, Paul Why the Edgeworth process assumption isn't that bad. **80i:90030**

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Okuno, Masahiro *See* **Cass, David; et al., 80f:90026**

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Positiveness and singularity of balanced prices in an optimal model of economic equilibrium. (Russian. English summary) **80i:90033**

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A class of optimal trajectories in Neumann-Gale models. (Russian) **80i:90034**

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Shitovitz, Benyamin *See* **Greenberg, Joseph; et al., 80j:90031**

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Kogelschatz, Hartmut Zur Bestimmung des aggregationsbedingten Prognosefehlers in Input-Output-Modellen. 80c:90042
Kovalenko, I. I. (*with* Puhtaevič, G. A.; Ravikovič, E. I.) Forecasting model system for national economic development in a long-term perspective. (Russian. English summary) 80g:90033
Majumdar, Mukul K. *See* Brock, W. A., 80d:90029
Moeschlin, Otto (*with* Hild, Claus) Ein weitgefasster "workability"-Begriff für Input-Output-Systeme und verallgemeinerte Hawkins-Simon-Bedingungen. 80b:90043
Moon, I. Douglas Effect of sectoral optimization on structural stability of a single-period dynamic input-output system. 80i:90043
Necşulescu, D. S. Stochastic models of the energy systems. (French and German summaries) 80h:90051
Nermuth, Manfred Sensitivity of optimal growth paths with respect to a change in target stocks or in the length of the planning horizon in a multisector model. 80c:90043
Nishimura, Kazuo *See* Benhabib, Jess, 80c:90040
Puhtaevič, G. A. *See* Kovalenko, I. I.; et al., 80g:90033
Ravikovič, E. I. *See* Kovalenko, I. I.; et al., 80g:90033
Rubinstein, A. G. Calculation of equilibrium in a model of economic interaction of regions. (Russian) 80m:90039
Sierksma, Gerard Nonnegative matrices: the open Leontief model. 80h:90052
Woods, John E. An input-output model with a lagged consumption function and proportional growth in autonomous expenditures. 80j:90052

Secondary classifications:

Bogomaz, Ju. P. *See* Dombrovskiĭ, Ju. A.; et al., (80m:92010)
Botez, M. C. *See* Onicescu, Octav, (80c:90044)
Burghes, David N. Mathematical modelling in geography and planning. (80j:00015)
Das, Satya P. (*with* Lee, Seung Dong) On the theory of international trade with capital mobility. (80b:90020)
Dombrovskiĭ, Ju. A. (*with* Šapovalov, N. E.; Bogomaz, Ju. P.) On the analysis of the optimal policies for the exploitation of biological resources. (Russian) (80m:92010)
Fujimoto, T. Nonlinear generalization of the Frobenius theorem. A symmetric approach. (80h:90022)
Lee, Seung Dong *See* Das, Satya P., (80b:90020)
Onicescu, Octav (*with* Botez, M. C.) A stochastic-informational approach to input-output analysis. (French and Russian summaries) (80c:90044)
Šapovalov, N. E. *See* Dombrovskiĭ, Ju. A.; et al., (80m:92010)

90A19 Statistical models

Ando, Albert (*with* Norman, Alfred; Palash, Carl) On the application of optimal control to large scale econometric models. 80b:90044
Botez, M. C. *See* Onicescu, Octav, 80c:90044
Bourguignon, François Decomposable income inequality measures. 80h:92010
Bühler, Günter (*with* Inderfurth, Karl) Optimale Politiken in Kassenhaltungsmodellen mit autoregressiven Zahlungssalden. 80b:90045
Dorfman, Robert A formula for the Gini coefficient. 80b:90046
Hunyadi, László (*with* Neményi, Judit) A method of combining yearly and quarterly econometric models. (Hungarian. English and Russian summaries) 80f:90047
Inderfurth, Karl *See* Bühler, Günter, 80b:90045
Kennan, John The estimation of partial adjustment models with rational expectations. 80h:90053
Neck, Reinhard Random models of income and wealth distribution. 80e:90033
Neményi, Judit *See* Hunyadi, László, 80f:90047
Nickell, Stephen Estimating the probability of leaving unemployment. 80g:90034
Norman, Alfred *See* Ando, Albert; et al., 80b:90044
Onicescu, Octav (*with* Botez, M. C.) A stochastic-informational approach to input-output analysis. (French and Russian summaries) 80c:90044
Palash, Carl *See* Ando, Albert; et al., 80b:90044
Rustem, B. (*with* Velupillai, Kumaraswamy) On the definition and detection of structural change. 80h:90054
Velupillai, Kumaraswamy *See* Rustem, B., 80h:90054

Secondary classifications:

Balcer, Yves *See* Şahin, İzzet, (80h:90055)
Hartfiel, D. J. Some error estimates in matrix economic models. (80c:90041)
Şahin, İzzet (*with* Balcer, Yves) Stochastic models for pensionable service. (80h:90055)
Toutenburg, Helge (*with* Wargowske, B.) On restricted 2-stage-least-squares (2SLSE) in a system of structural equations. (German and Russian summaries) (80h:62082)
Wargowske, B. *See* Toutenburg, Helge, (80h:62082)
Whitaker, D. The derivation of a measure of brand loyalty using a Markov brand switching model. (80a:90043)

90A20 Economic time series analysis [See also 62M10.]

Howe, Howard (*with* Pollak, Robert A.; Wales, Terence J.) Theory and time series estimation of the quadratic expenditure system. 80g:90035
Masson, André (*with* Strauss-Kahn, Dominique) Le temps dans l'analyse des phénomènes économiques: processus stochastiques et interprétation des données synchroniques. (English and Spanish summaries) 80a:90045
Pollak, Robert A. *See* Howe, Howard; et al., 80g:90035
Strauss-Kahn, Dominique *See* Masson, André, 80a:90045
Wales, Terence J. *See* Howe, Howard; et al., 80g:90035

Secondary classifications:

Balinski, M. L. (*with* Young, H. P.) Criteria for proportional representation. (80c:90014)
Ledolter, Johannes Inference robustness of ARIMA models under non-normality—special application to stock price data. (80e:62060)
Leiner, Bernd ★Spektralanalyse ökonomischer Zeitreihen. (80e:62064)
Regev, Uri *See* Schwartz, Aba, (80j:90069)
Schwartz, Aba (*with* Regev, Uri) Estimation of production functions free of specification bias due to aggregation. (80j:90069)
Young, H. P. *See* Balinski, M. L., (80c:90014)

90A30 Applications to problems of human society (air pollution, etc.)

Balcer, Yves *See* Şahin, İzzet, 80h:90055
Deshmukh, Sudhakar D. (*with* Pliska, Stanley R.) Optimal consumption and exploration of nonrenewable resources under uncertainty. 80j:90053
Lewis, Tracy R. The exhaustion and depletion of natural resources. 80j:90054
Petrauskas, A. A mathematical model for the choice of a technological process and method of purification of polluted waste water. (Russian. Lithuanian and English summaries) 80b:90047
Pliska, Stanley R. *See* Deshmukh, Sudhakar D., 80j:90053
Roberts, Fred S. ★Graph theory and its applications to problems of society. 80g:90036
Robson, Arthur J. Sequential exploitation of uncertain deposits of a depletable natural resource. 80i:90044
Şahin, İzzet (*with* Balcer, Yves) Stochastic models for pensionable service. 80h:90055
Sethi, Suresh P. Optimal depletion of an exhaustible resource. 80h:90056

Secondary classifications:

Burghes, David N. Mathematical modelling in geography and planning. (80j:00015)
Davison, Robert Optimal depletion of an exhaustible resource with research and development towards an alternative technology. (80i:90039)
Hurwicz, Leonid On allocations attainable through Nash equilibria. (80g:90019)
Kemeny, John G. (*with* Snell, J. Laurie) ★Mathematical models in the social sciences. (80a:92060)
Roemer, John E. Divide and conquer: microfoundations of a Marxian theory of wage discrimination. (80h:92021)
Snell, J. Laurie *See* Kemeny, John G., (80a:92060)

90A99 None of the above, but in this section

(Dubov, Ju. A.) *See* Wilson, A. G., 80d:90030
Eichhorn, Wolfgang ★Functional equations in economics. 80e:90034
Gerčakov, L. M. On the theory of technological processes. (Russian) 80f:90048

(Imel'baev, Š. S.) *See* Wilson, A. G., 80d:90030
Lan, Lawrence J. On exact index numbers. 80c:90035
Mănescu, Manea Economic logistics and quantum. 80a:90046
(Pophov, Ju. S.) *See* Wilson, A. G., 80d:90030
Popovici, Al. A. A Markovian stochastic model of the profit's general rate formation. (French and Russian summaries) 80c:90045
Surčimellija, R. A. The problem of establishing the form of the extrapolation function. (Russian. Georgian and English summaries) 80m:90040
Sengupta, Jati K. Optimal resource allocation under stochastic prices and yields. 80m:90041
(Šmul'jan, B. L.) *See* Wilson, A. G., 80d:90030
Sebőcz, Péter Solution of an econometric model by mathematical programming. (Hungarian. English and Russian summaries) 80c:90036
Theil, Henri The measurement of inequality by components of income. 80f:90049
Wilson, A. G. ★Энтропийные методы моделирования сложных систем. (Russian) [Entropy methods in modelling of complex systems] 80d:90030

Secondary classifications:

Amagasa, Michio *See* Tazaki, Eiichiro, (80e:94032)
Auray, Jean-Paul (*with* Duru, Gérard; Mougeot, Michel) ★D'une analyse topologique à l'autre. (80e:05052)
(Bakaev, A. A.) *See* Application of mathematical methods in economic investigations and planning, (80d:90088)
(Baĭan, L. I.) *See* Application of mathematical methods in economic investigations and planning, (80d:90088)
Božarov, L. N. A mathematical model of short-range forecasting of the state of the fishery industry. (Russian) (80b:92045)
Chu, A. T. W. (*with* Kalaba, Robert E.; Spingarn, K.) A comparison of two methods for determining the weights of belonging to fuzzy sets. (80l:03062)
Duru, Gérard *See* Auray, Jean-Paul; et al., (80e:05052)
(Elton, E. J.) *See* Portfolio theory, 25 years after, (80k:90001)
(Gruber, M. J.) *See* Portfolio theory, 25 years after, (80k:90001)
Kalaba, Robert E. *See* Chu, A. T. W.; et al., (80l:03062)
Lan, Lawrence J. A note on the compatibility of a system of difference equations and a time-independent linear equation. (80l:65148)
(Markowitz, Harry) *See* Portfolio theory, 25 years after, (80k:90001)
Mougeot, Michel *See* Auray, Jean-Paul; et al., (80e:05052)
Pratt, John W. Finding how many roots a polynomial has in (0, 1) or (0, ∞). (80l:62088)
Spingarn, K. *See* Chu, A. T. W.; et al., (80l:03062)
Tazaki, Eiichiro (*with* Amagasa, Michio) Structural modeling in a class of systems using fuzzy sets theory. (80e:94032)
Application of mathematical methods in economic investigations and planning ★Применение математических методов в экономических исследованиях и планировании. (Russian) [Application of mathematical methods in economic investigations and planning] (80d:90088)
Economic planning *See* Application of mathematical methods in economic investigations and planning, (80d:90088)
Portfolio theory, 25 years after ★Portfolio theory, 25 years after. (80k:90001)

90Bxx Operations research and management science

(Elmaghraby, Salah E.) *See* Handbook: Operations research, 80a:90047
(Evtušenko, Ju. G.) *See* Operations research (models, systems, solutions), 80d:90031
Kobayashi, Takashi Combinatorial problems and their algorithms in operations research. (Japanese) 80k:90015
(Kravčenko, V. E.) *See* Systems analysis of industrial production, 80a:90048
(Mar'janovič, T. P.) *See* Questions of modeling complex systems, 80j:90055
(Moder, Joseph J.) *See* Handbook: Operations research, 80a:90047
(Ponomarenko, L. L.) *See* Questions of modeling complex systems, 80j:90055
(Skurihin, V. I.) *See* Systems analysis of industrial production, 80a:90048
Complex systems *See* Questions of modeling complex systems, 80j:90055
Handbook:
Operations research ★Handbook of operations research. 80a:90047
Modeling complex systems *See* Questions of modeling complex systems, 80j:90055
Operations research *See* Handbook: Operations research, 80a:90047
Operations research (models, systems, solutions) ★Исследование операций (модели, системы, решения). Вып. 6. (Russian) [Operations research (models, systems, solutions). No. 6] 80d:90031
Questions of modeling complex systems ★Вопросы моделирования сложных систем. (Russian) [Questions of modeling complex systems] 80j:90055
Systems analysis of industrial production ★Системный анализ промышленного производства. (Russian) [Systems analysis of industrial production] 80a:90048

Secondary classifications:

(Adam, Nabil R.) *See* Current issues in computer simulation, (80m:68085)
(Dogramaci, Ali) *See* Current issues in computer simulation, (80m:68085)
Weber, Richard R. The interchangeability of $\cdot/M/1$ queues in series. (80h:60118)
Computer simulation *See* Current issues in computer simulation, (80m:68085)
Current issues in computer simulation ★Current issues in computer simulation. (80m:68085)

90B05 Logistics, inventory, storage

Aggarwal, S. P. A note on an order level inventory model for a system with constant rate of deterioration. 80f:90053
Barbosa, Lineu C. (*with* Friedman, Moshe) Deterministic inventory lot size models—a general root law. 80c:90046
(*with* Friedman, Moshe) Inventory lot size models with vanishing market. 80j:90056
Bradford, John *See* Ritzman, Larry; et al., 80m:90044
Bradshaw, A. (*with* Porter, B.) Minimum settling-time control policies for cascaded production-inventory systems. 80a:90049
Dave, Upendra (*with* Shah, Y. K.) Alternative derivation of deterministic inventory models with nonconstant demand. 80g:90037
Deuermeyer, Bryan L. A multi-type production system for perishable inventories. 80h:90057
Doshi, Bharat T. (*with* van der Duyn Schouten, F. A.; Talman, A. J. J.) A production-inventory control model with a mixture of back-orders and lost-sales. 80c:90047
Drezner, Z. (*with* Wesolowsky, G. O.) A new method for the multifacility minimax location problem. 80a:90050
van der Duyn Schouten, F. A. *See* Doshi, Bharat T.; et al., 80c:90047
Feldman, Richard M. A continuous review (s, S) inventory system in a random environment. 80l:90045
Friedman, Moshe *See* Barbosa, Lineu C., 80c:90046 *and* Barbosa, Lineu C., 80j:90056
Gilbert, Richard J. Optimal depletion of an uncertain stock. 80h:90058
Girlich, Hans-Joachim Mathematische Grundlagen der Lagerhaltung bei Unsicherheit. 80c:90048
★Stochastische Lagerhaltungssysteme und die wirtschaftliche Losgrösse. 80f:90051
Golovko, V. I. *See* Jastremskiĭ, A. I., 80m:90042
Graves, Stephen C. (*with* Keilson, Julian) A methodology for studying the dynamics of extended logistic systems. 80l:90046
Gupta, R. D. Single commodity two brands discrete inventory model. 80f:90052
Henery, R. J. Inventory replenishment policy for increasing demand. 80f:90053
Hinderer, K. (*with* Kadelka, D.) The general solution of a classical stochastic inventory problem and its generalization. 80a:90051
Iwaniec, Katarzyna An inventory model with full load ordering. 80j:90057
Jacobs, Robert *See* Ritzman, Larry; et al., 80m:90044
Jagannathan, R. A minimax ordering policy for the infinite stage dynamic inventory problem. 80c:90049
Jastremskiĭ, A. I. (*with* Golovko, V. I.) Investigation of some stochastic models of inventory control. (Russian. English summary) 80m:90042
Kabe, D. G. *See* Laurent, A. G., 80b:90050
Kadelka, D. *See* Hinderer, K., 80a:90051
Kalo, Naoto (*with* Osaki, Shunji) Optimum ordering policies with discounting when order costs depend on time. 80f:90054
(*with* Osaki, Shunji) Extended optimum ordering policies with discounting. 80m:90043
Kalin, Dieter Dynamische Mehrproduktlager und verallgemeinerte (s, S) Politiken bei endlichem Planungshorizont. 80b:90048
Konvergenzbetrachtungen bei stochastischen dynamischen Lagermodellen. 80b:90049
Keilson, Julian *See* Graves, Stephen C., 80l:90046
Kelle, P. *See* Prékopa, A., 80c:90057
Kottas, John F. (*with* Lau, Hon Shiang) Inventory control with general demand and lead time distributions. 80l:90047
Kumar, Upendra (*with* Vrat, Prem) Optimization of single-item multi-stage stochastic production-inventory systems. 80f:90055
Lau, Hon Shiang *See* Kottas, John F., 80l:90047
Laurent, A. G. (*with* Kabe, D. G.) Statistical normal inventory models. 80b:90050
Ledin, M. I. A class of homogeneous resource-allocation problems. (Russian) 80l:90048
Liberatore, Matthew J. The EOQ model under stochastic lead time. 80k:90016
Liberman, Varda (*with* Yechiali, Uri) On the hotel overbooking problem—an inventory system with stochastic cancellations. 80c:90051
Ljubovickiĭ, L. V. Properties of the basis matrices of a class of polyhedra. (Russian) 80j:90058
McGillivray, A. Russell (*with* Silver, Edward A.) Some concepts for inventory control under substitutable demand. (French summary) 80l:90049
Miller, Bruce L. (*with* Modarres-Yazdi, Mohammad) The distribution of recoverable inventory items from a repair center when the number of consumption centers is large. 80b:90051
Modarres-Yazdi, Mohammad *See* Miller, Bruce L., 80b:90051
Morton, Thomas E. The nonstationary infinite horizon inventory problem. 80c:90052
Muckstadt, John A. Some approximations in multi-item multi-echelon inventory systems for recoverable items. 80c:90053
Muth, Eginhard J. (*with* Spremann, K.) A class of stationary EOQ problems and learning effects. 80a:90052
Nahmias, Steven On ordering perishable inventory when both demand and lifetime are random. 80c:90054
(*with* Wang, Shan Shan) Approximating partial inverse moments for certain normal variates with an application to decaying inventories. 80a:90053
Nakagami, Junichi Perishable inventory problem with two types of warehouses. (Japanese summary) 80c:90055
Nasirova, T. I. A model of inventory control. (Russian) 80f:90056
Nishimura, Shōichi Optimal interval for stochastic clearing systems. (Japanese summary) 80g:90038
Osaki, Shunji *See* Thomas, L. C., 80a:90055; Kalo, Naoto, 80f:90054 *and* Kalo, Naoto, 80m:90043
Porter, B. *See* Bradshaw, A., 80a:90049
Prastacos, Gregory P. LIFO distribution systems. 80c:90056
Prékopa, A. (*with* Kelle, P.) Reliability type inventory models based on stochastic programming. 80c:90057
Richter, K. Lösung einiger deterministischer dynamischer Lagerhaltungsaufgaben. 80d:90032
Ritzman, Larry (*with* Bradford, John; Jacobs, Robert) A multiple objective approach to space planning for academic facilities. 80m:90044
Rusnak, Zofia An attempt to solve the location problem with weights on the plane. (Polish. English and Russian summaries) 80j:90059

Şahin, İzzet On the stationary analysis of continuous review (s, S) inventory systems with constant lead times. **80i:90050**
Shah, Y. K. *See* **Dave, Upendra, 80g:90037**
Silver, Edward A. *See* **McGillivray, A. Russell, 80i:90049**
Simonovits, András Norms, expectations and stability in a linear economy. (Hungarian. English and Russian summaries) **80j:90060**
Spremann, K. *See* **Muth, Eginhard J., 80a:90052**
Srinivasan, S. K. General analysis of *s-S* inventory systems with random lead times and unit demands. **80c:90050**
Sonr, Edward A. Information systems for observing inventory levels. **80e:90037**
Tadikamalla, Pandu R. Applications of the Weibull distribution in inventory control. **80a:90054**
Talman, A. J. J. *See* **Doshi, Bharat T.; et al., 80c:90047**
Thomas, L. C. (*with* Osaki, Shunji) An optimal ordering policy for a spare unit with lead time. **80a:90055**
Thorburn, Daniel An inventory depletion problem with random and age-dependent lifetimes. **80b:90052**
Vrat, Prem *See* **Kumar, Upendra, 80f:90055**
Waldmann, K.-H. Numerical aspects in Bayesian inventory control. (German summary) **80b:90053**
Wang, Shan Shan *See* **Nahmias, Steven, 80a:90053**
Wesolowsky, G. O. *See* **Drezner, Z., 80a:90050**
Wijngaard, J. (*with* van Winkel, E. G. F.) Average costs in a continuous review (s, S) inventory system with exponentially distributed lead time. **80e:90038**
van Winkel, E. G. F. *See* **Wijngaard, J., 80e:90038**
Yechiali, Uri *See* **Liberman, Varda, 80c:90051**
Zalkind, David Order-level inventory systems with independent stochastic leadtimes. **80a:90056**

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Abakuks, Andris An optimal hunting policy for a stochastic logistic model. **(80c:92022)**
Bühler, Günter (*with* Inderfurth, Karl) Optimale Politiken in Kassenhaltungsmodellen mit autoregressiven Zahlungssalden. **(80b:90045)**
Čerenkov, A. P. An integral resource allocation problem. (Russian) **(80i:49014)**
Fisher, M. L. (*with* Hochbaum, D. S.) Probabilistic analysis of the planar *K*-median problem. **(80m:90047)**
Gardarin, G. Contribution to the theory of concurrency in databases. **(80g:68024)**
Harris, Carl M. *See* **Thiagarajan, T. R., (80g:90056)**
Harrison, J. Michael (*with* Resnick, Sidney I.) The recurrence classification of risk and storage processes. **(80a:60109)**
Hochbaum, D. S. *See* **Fisher, M. L., (80m:90047)**
Ibaraki, Toshihide *See* **Katoh, Naoki; et al., (80m:90068)**
Inderfurth, Karl *See* **Bühler, Günter, (80b:90045)**
Karmarkar, Uday S. Convex/stochastic programming and multilocation inventory problems. **(80f:90099)**
Katoh, Naoki (*with* Ibaraki, Toshihide; Mine, Hisashi) Algorithms for a variant of the resource allocation problem. (Japanese summary) **(80m:90068)**
Laslett, G. M. (*with* Pollard, D. B.; Tweedie, Richard L.) Techniques for establishing ergodic and recurrence properties of continuous-valued Markov chains. **(80e:60081)**
Mine, Hisashi *See* **Katoh, Naoki; et al., (80m:90068)**
Pollard, D. B. *See* **Laslett, G. M.; et al., (80e:60081)**
Resnick, Sidney I. *See* **Harrison, J. Michael, (80a:60109)**
Słowiński, Roman Modèles et méthodes d'allocation optimale de moyens limités dans le complexe d'opérations—orientations nouvelles. **(80a:90081)**
Thiagarajan, T. R. (*with* Harris, Carl M.) Statistical tests for exponential service from $M/G/1$ waiting-time data. **(80g:90056)**
Todd, Michael J. Solving the generalized market area problem. **(80a:90129)**
Tweedie, Richard L. *See* **Laslett, G. M.; et al., (80e:60081)**

90B10 Flows in networks, deterministic

Abdulaal, Mustafa *See* **LeBlanc, Larry J., 80e:90043**
Abel, U. (*with* Carstens, H. G.; Deuber, W.; Prömel, H. J.) On hypergraphic networks. **80e:90039**
Ali, A. I. (*with* Helgason, R. V.; Kennington, J. L.; Lall, H. S.) Primal simplex network codes: state-of-the-art implementation technology. **80a:90057**
Aneja, Y. P. (*with* Nair, K. P. K.) The constrained shortest path problem. **80a:90058**
Artzner, Philippe (*with* Rado, Richard) A theorem on flow in directed graphs. **80d:90033**
Avis, David Two greedy heuristics for the weighted matching problem. **80g:90039**
Ball, Michael O. *See* **Golden, B. L., 80d:90034**
Bhaskaran, Sita (*with* Salzborn, Franz J. M.) Optimal diameter assignment for gas pipeline networks. **80h:90059**
Billstein, N. (*with* Radermacher, F. J.) Time-cost optimization. **80b:90054**
Braess, Dietrich (*with* Koch, G.) On the existence of equilibria in asymmetrical multiclass-user transportation networks. **80m:90045**
Braverman, È. M. (*with* Levin, M. I.) Identification of effective network states of industrial elements. I. **80a:90059**
Brown, J. Randall The sharing problem. **80f:90057**
Carstens, H. G. *See* **Abel, U.; et al., 80e:90039**
Chan, Albert W. (*with* Francis, Richard L.) Some layout problems on the line with interdistance constraints and costs. **80f:90051**
Chen, I Ngo (*with* Chen, Paul Y.; Feng, Tse Yun) Associative processing of network flow problems. **80f:90058**
Chen, Paul Y. *See* **Chen, I Ngo; et al., 80f:90058**
Cheung, To Yat Computational comparison of eight methods for the maximum network flow problem. **80m:90046**
Chrea, Eleonor Deux remarques sur le flot dynamique maximal de coût minimal. (English summary) **80h:90060**
Collins, M. (*with* Cooper, Leon; Helgason, R. V.; Kennington, J. L.; LeBlanc, Larry J.) Solving the pipe network analysis problem using optimization techniques. **80a:90060**
Cooper, Leon *See* **Collins, M.; et al., 80a:90060**
Cybatov, V. A. *See* **Vittih, V. A.; et al., 80b:90063**
(Davidson, D.) *See* **White, D. J., 80k:90018**
Dejon, B. A note on directional differentiability of flow network equilibria with respect to a parameter. **80a:90061**
Denardo, Eric V. (*with* Fox, Bennett L.) Shortest-route methods. I. Reaching, pruning, and buckets. **80h:90061**
Deuber, W. *See* **Abel, U.; et al., 80e:90039**
Dial, R. (*with* Glover, Fred; Karney, David L.; Klingman, Darwin) A computational analysis of alternative algorithms and labeling techniques for finding shortest path trees. **80g:90040**
Eiselt, Horst ★Inhomogene Flussprobleme: das Min-Max Theorem. **80h:90062**
Elmaghraby, Salah E. (*with* Pulat, P. S.) Optimal project compression with due-dated events. **80c:90058**
Eremeško, I. V. (*with* Phoveliŭvili, Z. I.) An approximate and exact method for searching the Hamiltonian cycle of minimal length. (Russian) **80a:90040**
Erlander, S. (*with* Nguyen, S.; Stewart, N. F.) On the calibration of the combined distribution-assignment model. **80e:90041**
Evans, James R. (*with* Martin, Kipp) A note on feasible flows in lower-bounded multicommodity networks. **80c:90059**
Fedulov, L. V. *See* **Zabello, L. E., 80a:90069**
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Nash, Peter Controlled jump process models for stochastic scheduling problems. **(80k:93058)**
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Szymura, Jerzy Optimization of the production line schedule. (Polish. English and Russian summaries) **(80g:90060)**

90B40 Search theory

Devroye, Luc P. Progressive global random search of continuous functions. **80d:90048**
Kaniovskiĭ, Ju. M. (*with* Ljalko, S. I.) Improvement of results on asymptotic properties of relaxation random search methods. (Russian. English summary) **80g:90067**
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Hu, T. C. (*with* Kleitman, Daniel J.; Tamaki, Jeanne K.) Binary trees optimum under various criteria. **(80k:68049)**
Kleitman, Daniel J. *See* **Hu, T. C.; et al.,** **(80k:68049)**
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Rastrigin, L. A. (*with* Ripa, K. K.; Tarasenko, G. S.) ★Адаптация случайного поиска. (Russian) [Adaptation of random search] **(80k:93059)**
Particularities of the calculation of bounds in random search processes. (Russian) **(80c:65024)**
Ripa, K. K. A generalized algorithm of coordinate-wise adaptation of random search for the extremum. (Russian) **(80c:90114)**
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Tamaki, Jeanne K. *See* **Hu, T. C.; et al.,** **(80k:68049)**
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90B99 None of the above, but in this section

Aptekar, A. S. *See* **Suvorov, G. D.; et al.,** **80k:90022**
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Pruzan, Peter Mark *See* **Krarup, Jakob,** **80a:90084**
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90Cxx Mathematical programming {For papers emphasizing calculus of variations or involving abstract spaces, see 49Dxx. For numerical methods, see 65K05.}

(Huard, P.) *See* **Point-to-set maps and mathematical programming,** **80j:90074**
Mathematical programming *See* **Point-to-set maps and mathematical programming,** **80j:90074**
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Secondary classifications:

(Allahverdiev, Dž. È.) *See* **Questions of mathematical cybernetics and applied mathematics,** **(80g:93002)**
Craven, Bruce Desmond ★Mathematical programming and control theory. **(80d:93001)**
(Hettich, R.) *See* **Semi-infinite programming,** **(80j:90005)**
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Bad Honnef *See* **Semi-infinite programming,** **(80j:90005)**
Cybernetics *See* **Questions of mathematical cybernetics and applied mathematics,** **(80g:93002)**
Heiligenstadt *See* **Hoffmann, A.; et al.,** **(80c:90001)**
Mathematical optimization *See* **Hoffmann, A.; et al.,** **(80c:90001)**
Programming *See* **Semi-infinite programming,** **(80j:90005)**
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Workshop:
Mathematical Optimization *See* **Hoffmann, A.; et al.,** **(80c:90001)**
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90C05 Linear programming

Agrawal, S. C. (*with* Verma, R. K.) On solving interval linear programming problems by a branch and bound technique. **80b:90087**
Alders, C. D. (*with* Sposito, V. A.) A note on: "Real and complex Fritz John theorems" (J. Math. Anal. Appl. **44** (1973), 773–778) by B. D. Craven and B. Mond. **80c:90089**
Astaf'ev, N. N. The dual regularization of a linear programming problem given by a sequence of realizations. (Russian) **80c:90090**
Bastian, Michael Das Forrest-Tomlin Update-Verfahren in Winklers-Dekompositionsansatz. **80h:90092**
Beeck, Helmut Schwankungsbereiche linearer Optimierungsaufgaben. **80h:90093**
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Belen'kiĭ, A. S. One nonlinear planning problem. **80k:90023**
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Zum Rechenaufwand von Simplexverfahren. (English summary) **80h:90094**
Bulavskiĭ, V. A. (*with* Zvjagina, R. A.; Jakovleva, M. A.) ★Численные методы линейного программирования (специальные задачи). (Russian) [Numerical methods of linear programming (special problems)] **80c:90093**
Cottle, Richard W. (*with* Pang, Jong Shi) A least-element theory of solving linear complementarity problems as linear programs. **80a:90085**
(Craven, Bruce Desmond) *See* **Alders, C. D.; et al.,** **80c:90089**
Čurkov, V. I. (*with* Bělov, Ju. A.) Removal of degeneracy in a decomposition algorithm. (Russian. English summary) **80f:90072**
Dantzig, George B. (*with* Veinott, Arthur F., Jr.) Discovering hidden totally Leontief substitution systems. **80c:90094**
Darmaheev, V. P. A method of unstrict successive projections. (Russian) **80f:90073**
Datta, Neelam *See* **Kaul, R. N.,** **80d:90049**
Dawson, Jeremy *See* **Smith, Graham,** **80f:90079**
Demidenko, V. M. On the optimization of the value $v(A, \tau)$ on the set of cycles. (Russian. English summary) **80g:90070**

Derigs, Ulrich A generalized Hungarian method for solving minimum weight perfect matching problems with algebraic objective. **80j:90075**

Ecker, J. G. (*with* Hegner, Nancy S.) On computing an initial efficient extreme point. **80b:90088**

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Hačijan, L. G. A polynomial algorithm in linear programming. (Russian) **80g:90071**

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(Kantorovič, L. V.) *See* **Bulavskiĭ, V. A.; et al., 80c:90093**

Kaul, R. N. (*with* Datta, Neelam) On equivalence between a saddle-point problem and linear programming in complex space. **80d:90049**

Kirollova, F. M. *See* **Gabasov, R. F.; et al., 80e:90057**

Kleinmann, Pavel ★Quantitative Sensitivitätsanalyse bei parametrischen Optimierungsaufgaben. **80e:90059**

Kornblum, Deborah F. "Greedy" polymatroids and lattice polyhedra problems. **80e:90060**

Korznikov, A. D. *See* **Kravcov, M. K., 80k:90024**

Kostjukova, O. I. *See* **Gabasov, R. F.; et al., 80e:90057**

Kračkovskiĭ, A. P. *See* **Emeličev, V. A.; et al., 80j:90076**

Kravcov, M. K. (*with* Korznikov, A. D.) Enumeration problems on truncated transport polytopes. (Russian. English summary) **80k:90024**

See also **Emeličev, V. A.; et al., 80j:90076**

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Mangasarian, O. L. (*with* Sutherland, W. R. S.) Solution of the linear inverse vector optimization problem by a single linear program. **80f:90075**

Uniqueness of solution in linear programming. **80k:90025**

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Padberg, Manfred W. *See* **Grötschel, Martin, 80a:90088**

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Pavlov, Ju. G. Sensitivity of the coordinates of the optimum to disturbances of the coefficients in linear programming problems. **80f:90076**

Phoveliśvili, Z. I. *See* **Eremenko, I. V., 80a:90086**

Pinsker, A. G. Linear optimization in ordered spaces. (Russian) **80a:90090**

Poljakova, L. N. The continuity of normal cones. (Russian. English summary) **80j:90078**

Roleff, Klaus A stable multiple exchange algorithm for linear SIP. **80m:90066**

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Saxena, P. C. *See* **Patkar, Vivek; et al., 80m:90065**

Seelinder, Jörg Über die Verschärfung von Schnitten bei modifizierten Gomory-Verfahren. (English and Russian summaries) **80f:90077**

Selford, L. (*with* Yu, P. L.) Potential solutions of linear systems: the multi-criteria multiple constraint levels program. **80f:90078**

Šeĭman, O. K. Duality in certain discrete minimization problems. (Russian) **80k:90026**

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Ševčenko, V. N. Solution of a linear programming problem with variable coefficients. **80h:90096**

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Soyster, A. L. Inexact linear programming with generalized resource sets. **80f:90062**

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Sutherland, W. R. S. *See* **Mangasarian, O. L., 80f:90075**

Telgen, J. On R. W. Llewellyn's rules to identify redundant constraints: a detailed critique and some generalizations. (German summary) **80h:90097**

Thierrin, G. On the reverse of a linear program. **80f:90080**

Tichatschke, Rainer Fehlerschranken bei diskretisierten semi-infiniten linearen Optimierungsaufgaben. **80b:90091**

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Väliaho, Hannu A procedure for one-parametric linear programming. **80f:90082**

Vasin, V. V. Stable approximation of infinite-dimensional problems of linear and convex programming. (Russian) **80f:90083**

Veinott, Arthur F., Jr. *See* **Dantzig, George B., 80c:90094**

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Volynskiĭ, È. I. (*with* Zil'berman, I. A.) On the choice of penalty coefficient in iterative methods of linear programming. **80f:90084**

Wisniewski, John A. *See* **Hanson, Richard J., 80c:90096**

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Zil'berman, I. A. *See* **Volynskiĭ, È. I., 80f:90084**

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Ali, A. I. (*with* Helgason, R. V.; Kennington, J. L.; Lall, H. S.) Primal simplex network codes: state-of-the-art implementation technology. **(80a:90057)**

Best, Michael J. (*with* McFall, Nancy A.) The projection method of optimization applied to engineering plasticity problems. **(80g:73032)**

Bradford, John *See* **Ritzman, Larry; et al., (80m:90044)**

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Cottle, Richard W. (*with* Golub, Gene H.; Sacher, Richard S.) On the solution of large, structured linear complementarity problems: the block partitioned case. **(80a:90120)**

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Ibaraki, Toshihide *See* **Katoh, Naoki; et al., (80m:90068)**

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Jeroslow, Robert G. Some relaxation methods for linear inequalities. **(80g:49038)**

Karnovsky, A. *See* **Rubinstein, Y., (80d:90061)**

Katoh, Naoki (*with* Ibaraki, Toshihide; Mine, Hisashi) Algorithms for a variant of the resource allocation problem. (Japanese summary) **(80m:90068)**

Kennington, J. L. *See* **Ali, A. I.; et al., (80a:90057)**

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Korovin, S. K. *See* **Emel'janov, S. V.; et al., (80f:90085)**

Lall, H. S. *See* **Ali, A. I.; et al., (80a:90057)**

Lipton, Richard J. *See* **Dobkin, David P.; et al., (80h:68039)**

Mayne, D. Q. *See* **Polak, Elijah; et al., (80h:90131)**

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Miščenko, A. E. Optimal resource distribution in the case of volume-scheduling of work complexes. (Russian. English summary) **(80b:90082)**

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Nolte, Klaus Zur Konvergenz des Algorithmus von Krylow und Černous'ko. III. (English and Russian summaries) **(80j:49033)**

Polak, Elijah (*with* Trahan, R.; Mayne, D. Q.) Combined phase I–phase II methods of feasible directions. **(80h:90131)**

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Sacher, Richard S. *See* **Cottle, Richard W.; et al., (80a:90120)**

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Schrijver, Alexander A comparison of the Delsarte and Lovász bounds. **(80g:94033)**

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Curkov, V. I. The decomposition method based on aggregation in block programming. (Russian) **80g:90075**

Luderer, Bernd Zu einigen Anwendungsmöglichkeiten von Dekompositionsprinzipien bei der Lösung von Optimalsteueraufgaben. **80c:90098**

90C08 Special problems of linear programming (transportation and multi-index problems, etc.)

Ahrens, J. H. *See* **Finke, G., 80l:90063**

Bansal, Deepak A generalized-indices transportation problem. **80b:90092**

Bhatia, H. L. (*with* Swarup, Kanti; Puri, M. C.) Time enumeration technique for time-cost trade-off in a transportation problem. **80e:90061**

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Díaz, José A. Finding a complete description of all efficient solutions to a multiobjective transportation problem. (Czech summary) **80d:90051**

(Dutta, S. R. K.) *See* **Coleman, T. F., 80c:90099**

Finke, G. (*with* Ahrens, J. H.) A variant of the primal transportation algorithm. (French summary) **80l:90063**

(*with* Smith, P. A.) Primal equivalents to the threshold algorithm. **80e:90062**

Grötschel, Martin Hypo-Hamiltonian facets of the symmetric travelling salesman polytype. **80e:90063**

Hadlock, Frank O. (*with* Hoffman, Frederick) A minimum fleet size routing problem. **80k:90098**

Hoffman, Frederick *See* **Hadlock, Frank O., 80k:90098**

Hranovič, I. L. *See* **Kacnel'son, M. B., 80d:90052**

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Leont'ev, V. K. The number of optimal plans in the problem of assignments. (Russian) **80j:90080**

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Beeck, Helmut Schwankungsbereiche linearer Optimierungsaufgaben. (80h:90093)
Hamacher, H. (*with* Leberling, H.; Zimmermann, H.-J.) Sensitivity analysis in fuzzy linear programming. (80a:90089)
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Minaev, Ju. N. Algorithm for solution of a class of problems of nonlinear mathematical programming with vector criteria. (Russian) (80d:90075)
Stadler, W. A survey of multicriteria optimization or the vector maximum problem. I. 1776–1960. (80k:01028)
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Asmuth, Richard (*with* Eaves, B. Curtis; Peterson, Elmor L.) Computing economic equilibria on affine networks with Lemke's algorithm. (80e:90021)
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Billstein, N. (*with* Radermacher, F. J.) Time-cost optimization. **(80b:90054)**
Denardo, Eric V. (*with* Fox, Bennett L.) Shortest-route methods. I. Reaching, pruning, and buckets. **(80h:90061)**
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Golden, B. L. (*with* Ball, Michael O.) Shortest paths with Euclidean distances: an explanatory model. **(80d:90034)**
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Gallisch, Eckhardt On monotone optimal policies in a queueing model of $(M/G/1)$ type with controllable service time distribution. **(80g:60099)**
Glazebrook, K. D. Decomposable jump decision processes. **(80h:93073)**
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Heilmann, Wolf-Rüdiger Generalized linear programming of finite-stage dynamic programs. **(80b:90104)**
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Iwamoto, Seiichi Some operations on dynamic programmings with one-dimensional state space. **(80h:49017)**
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Law, Averill M. (*with* Carson, John S.) A sequential procedure for determining the length of a steady-state simulation. **(80g:68125)**
Lewis, Peter A. W. (*with* Shedler, Gerald S.) Simulation of nonhomogeneous Poisson processes with degree-two exponential polynomial rate function. **(80g:90051)**
Liberman, Varda (*with* Yechiali, Uri) On the hotel overbooking problem—an inventory system with stochastic cancellations. **(80c:90051)**
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Kalin, Dieter A note on: "Monotone optimal policies for Markov decision processes" (Math. Programming Stud. No. 6 (1976), 202–215) by R. F. Serfozo. **80a:90142**

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Sadjadi, D. (*with* Bestwick, Paul F.) A stagewise action elimination algorithm for the discounted semi-Markov problem. **80i:90098**

Sato, Mitsuo (*with* Abe, Kenichi; Takeda, Hiroshi) Asymptotic properties of Markovian decision processes with unknown parameters using Bayesian approach. **80e:90122**

Schweitzer, Paul J. (*with* Federgrün, A.) The functional equations of undiscounted Markov renewal programming. **80a:90144**

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Doshi, Bharat T. Controlled one dimensional diffusions with switching costs—average cost criterion. **(80a:60100)**

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Law, Averill M. (*with* Carson, John S.) A sequential procedure for determining the length of a steady-state simulation. **(80g:68125)**

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Presman, È. L. (*with* Sonin, I. M.) The "two-armed bandit" problem in continuous time. (Russian) **(80g:62058)**

Schäl, Manfred On the $M/G/1$-queue with controlled service rate. **(80a:60123)**

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Zidăroiu, Cornelia Stability properties for the functional equation occurring in the study of random decision systems with complete connections. **(80b:60079)**

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Ahmedov, F. G. Kuhn-Tucker conditions for a problem of quadratic programming in the space $L_2^n[0, T]$. (Russian. Azerbaijani and English summaries) **80a:90148**

Bender, P. J. An application of Guignard's generalized Kuhn-Tucker conditions. **80a:90149**

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Dantzig, George B. (*with* Parikh, S. C.) On a pilot linear programming model for assessing physical impact on the economy of a changing energy picture. **(80h:90161)**

Hartung, Joachim Zur Methode des steilsten Abstiegs für singuläre lineare Operatoren-Gleichungen. (English summary) **(80d:65078)**

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Application of mathematical methods in economic investigations and planning ★Применение математических методов в экономических исследованиях и планировании. (Russian) [Application of mathematical methods in economic investigations and planning] 80d:90088
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Aronovič, A. B. (*with* Afanas'ev, M. Ju.) Optimization of data surplus in information systems. (Russian) (80i:68083)
Babat, L. G. A problem with fixed payments. (80f:90086)
Bhaskaran, Sita (*with* Salzborn, Franz J. M.) Optimal diameter assignment for gas pipeline networks. (80h:90059)
Bhattacharjee, Manish C. Asymptotic gains of optimal procurement of services. (80e:90117)
Bondarenko, V. A. *See* Rublev, V. S.; et al., (80f:68025)
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Eremenko, I. V. (*with* Phoveliśvili, Z. I.) An approximate and exact method for searching the Hamiltonian cycle of minimal length. (Russian) (80e:90040)
Heilmann, Wolf-Rüdiger A duality theory for stop-loss distributions. (80g:62077)
Ho, Y. C. (*with* Kurtaran, B.) Distributed computing viewed as a team problem with constraints. (80a:90007)
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Katoh, Naoki (*with* Ibaraki, Toshihide; Mine, Hisashi) A polynomial time algorithm for the resource allocation problem with a convex objective function. (80f:90104)
Krarup, Jakob (*with* Pruzan, Peter Mark) Computer-aided layout design. (80a:90084)
Krivonožko, V. E. (*with* Propoĭ, A. I.) The method of successive improvement of control in dynamic linear programming problems. I. (80f:90140)
Kurtaran, B. *See* Ho, Y. C., (80a:90007)
Kuznecov, V. F. Solution of an integer-valued problem of distribution of resources in the case of renewal operations. (80j:90086)
Lageweg, B. J. (*with* Lenstra, J. K.; Rinnooy Kan, A. H. G.) Job-shop scheduling by implicit enumeration. (80c:90086)
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Marčuk, G. I. Problèmes liés à l'environnement: allocation optimale d'unités industrielles. (80e:92042)
Mathews, J. A. Primal and dual game theoretic solutions with applications to decentralized control. (80g:90144)
Mine, Hisashi *See* Katoh, Naoki; et al., (80f:90104)
Mjelde, K. M. Location of a discrete resource and its allocation according to a fractional objective. (80j:90105)
Morton, Thomas E. Infinite-horizon dynamic programming models—a planning-horizon formulation. (80j:90110)
Nair, K. P. K. *See* Aneja, Y. P., (80a:90058)
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processes by means of computers, (80c:90113a)
Otsuki, Mikiro Discrete procedures of economic planning: a unified view from feasible direction methods. **(80i:90006)**
Phovelišvili, Z. I. *See* **Eremenko, I. V., (80e:90040)**
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Rinnooy Kan, A. H. G. *See* **Lageweg, B. J.; et al., (80c:90086)**
Robson, Arthur J. Sequential exploitation of uncertain deposits of a depletable natural resource. **(80i:90044)**
Rublev, V. S. (*with* Bondarenko, V. A.; Sokolov, V. A.) Simultaneous ordering of input data structures and of output data generation. (Russian) **(80f:68025)**
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Sarvanov, V. I. The mean value of the functional in sampling problems. (Russian. English summary) **(80a:65134)**
Schittkowski, K. Über Minimierungsverfahren bei approximativer Kenntnis der Zielfunktion angewandt auf die numerische Lösung von Variationsproblemen. **(80i:49034)**
Smith, M. J. The optimal location of a single ring road. **(80d:90038)**
Sokolov, V. A. *See* **Rublev, V. S.; et al., (80f:68025)**
Stadje, Wolfgang Goal-programming- und Nutzenmodelle für Entscheidungssituationen mit mehreren Zielen und stochastischen Informationen. **(80i:90072)**
Sullivan, Paul J. The use of the distance-neighbour function to select service centres. **(80g:90069)**
Tijs, S. H. Approximation of infinite linear programs in games with finite subprograms in subgames. **(80f:90081)**
Todd, Michael J. A note on computing equilibria in economies with activity analysis models of production. **(80g:90022)**
Wu, Chien Fu Some algorithmic aspects of the theory of optimal designs. **(80d:62061)**
Combinatorial algorithms for optimal decision making ★Комбинаторные алгоритмы принятия оптимальных решений. (Russian) [Combinatorial algorithms for optimal decision making] **(80j:90002)**
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Digital processing and transmission of data and control of processes by means of computers ★Prelucrarea şi transmiterea numerică a datelor şi conducerea proceselor cu ajutorul calculatoarelor. (Romanian) [Digital processing and transmission of data and control of processes by means of computers] **(80c:90113a)**

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Benson, Harold P. An improved definition of proper efficiency for vector maximization with respect to cones. **80j:90115**
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Dudkin, L. M. *See* **Vahutinskiĭ, I. Ja.; et al., 80f:90151**
Fisher, M. L. (*with* Nemhauser, George L.; Wolsey, L. A.) An analysis of approximations for maximizing submodular set functions. II. **80d:90090**
Guivoronskiĭ, A. A. Methods for seeking optimal sets. (Russian. English summary) **80c:90127**
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van der Laan, G. (*with* Talman, A. J. J.) A restart algorithm for computing fixed points without an extra dimension. **80e:90128**
Liu, Yan Pei Modulo-2 programming and planar embeddings. (Chinese) **80c:90154**
Meyer, Gerard G. L. Asymptotic properties of sequences iteratively generated by point-to-set maps. **80c:90155**
Miele, A. (*with* Gonzalez, S.) On the comparative evaluation of algorithms for mathematical programming problems. **80a:90158**
Naumov, G. E. The rule of multipliers for a vector problem of optimization with an infinite set of criteria. **80g:90123**
Nemhauser, George L. *See* **Fisher, M. L.; et al., 80d:90090**
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Sakarovitch, M. Quelques théorèmes de dualité combinatoire. (English summary) **80i:90103**
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Szymanowski, J. (*with* Ruszczyński, Andrzej) Convergence analysis for two-level algorithms of mathematical programming. **80d:90091**
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Tuhvatov, M. B. Weight functions and their basic properties. (Russian) **80a:90160**
Vahutinskiĭ, I. Ja. (*with* Dudkin, L. M.; Ryvkin, A. A.) Iterative aggregation—a new approach to the solution of large-scale problems. **80f:90151**
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(Amerbaev, V. M.) *See* **Coding theory and the optimization of complex systems, (80b:94001)**
Auslender, Alfred Calcul de points vérifiant des conditions nécessaires d'optimalité du second ordre. (English summary) **(80c:49030)**
Bair, Jacques A rapid view on the utility of separation theorems for inequalities and extrema problems. **(80d:65074)**
Beĭko, I. V. (*with* Gnatjuk, V. O.; Moĭko, V. V.) The generalized L-problem of moments, and a method of solving it. (Russian) **(80a:65127)**
Callier, F. M. (*with* Toint, Ph. L.) Errata corrige: "On the accelerating property of an algorithm for function minimization without calculating derivatives" (J. Optim. Theory Appl. **23** (1977), no. 4, 531–547). **(80c:65128)**
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Chow, Shui Nee (*with* Mallet-Paret, John; Yorke, James A.) Finding zeroes of maps: homotopy methods that are constructive with probability one. **(80d:55002)**
Cohen, Jacques (*with* Hickey, Timothy) Two algorithms for determining volumes of convex polyhedra. **(80g:52006)**
Damm, Heinz Über glatte einfache Flächen in globaler Auffassung. (Russian, English and French summaries) **(80f:52011)**
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Tarasov, V. N. *See* **Vasil'ev, L. V., (80g:65077)**
Tarasova, V. P. Optimal strategies for seeking the domain of the greatest values for a certain class of functions. (Russian) **(80d:65083)**
Tihonov, A. N. (*with* Vasil'ev, F. P.) Methods for the solution of ill-posed extremal problems. (Russian) **(80b:65071)**
Toint, Ph. L. *See* **Callier, F. M., (80c:65128)**
Vasil'ev, F. P. *See* **Tihonov, A. N., (80b:65071)**
Vasil'ev, L. V. (*with* Tarasov, V. N.) A method for solving minimax problems. (Russian) **(80g:65077)**
Viry, Guy Factorisation des polynômes à plusieurs variables à coefficients entiers. **(80g:94056)**
Volynskiĭ, Ė. I. (*with* Počtman, Ju. M.) Some smoothing algorithms of random search. A survey. (Russian) **(80h:90091)**
Yorke, James A. *See* **Chow, Shui Nee; et al., (80d:55002)**
Coding theory and the optimization of complex systems ★Теория кодирования и оптимизация сложных систем. (Russian) [Coding theory and the optimization of complex systems] **(80b:94001)**
Optimization *See* **Coding theory and the optimization of complex systems, (80b:94001)**

90Dxx Game theory [See also 49A45, 68D27.]

(Šimel'fenig, O. V.) *See* **Mathematical models of behavior, 80f:90152**
(Vorob'ev, Nikolai Nikolaevič) *See* **Game theory questions of decision making, 80d:90092**
Decision making *See* **Game theory questions of decision making, 80d:90092**
Game theory questions of decision making ★Теоретико-игровые вопросы принятия решений. (Russian) [Game theory questions of decision making] **80d:90092**
Mathematical models of behavior ★Математические модели поведения. Вып. 3. (Russian) [Mathematical models of behavior. No. 3] **80f:90152**

Secondary classifications:

Burgin, M. S. (*with* Harlamov, M. A.) Connections between relations and their applications in computer science. (Russian) **(80g:68012)**
Chandra, Ashok K. *See* **Stockmeyer, Larry J., (80d:68060)**
Harlamov, M. A. *See* **Burgin, M. S., (80g:68012)**
(Moeschlin, Otto) *See* **Game theory and related topics, (80j:90003)**
(Novožilov, V. V.) *See* **Control of dynamical systems, (80d:93008)**
(Pallaschke, Diethard) *See* **Game theory and related topics, (80j:90003)**
Stockmeyer, Larry J. (*with* Chandra, Ashok K.) Provably difficult combinatorial games. **(80d:68060)**
Bonn *See* **Game theory and related topics, (80j:90003)**
Control of dynamical systems ★Управление динамическими системами. (Russian) [Control of dynamical systems] **(80d:93008)**
Game theory and related topics ★Game theory and related topics. **(80j:90003)**
Hagen *See* **Game theory and related topics, (80j:90003)**
Seminar:
Game Theory and Related Topics *See* **Game theory and related topics, (80j:90003)**

90D05 2-person games

Bil'čuk, V. M. (*with* Kušneruk, Ju. I.) Existence of a solution to the game problem of distribution with constraints on the behavior of the sides. (Russian) **80g:90124**

Brams, Steven J. (*with* Davis, Morton D.) Optimal jury selection: a game-theoretic model for the exercise of peremptory challenges. **80a:90161**
Davis, Morton D. *See* **Brams, Steven J., 80a:90161**
Flanigan, Jim Generalized two-pile Fibonacci nim. **80a:90162**
Furugjan, M. G. The approximate solution of infinite antagonistic games with the choice of several moments of time. (Russian) **80f:90153**
Gerard-Varet, L. A. (*with* Moulin, Hervé) Correlation and duopoly. **80a:90163**
Gerjanov, A. M. Convex games on nonconvex sets. **80j:90116**
Guy, Richard K. Partisan and impartial combinatorial games. **80c:90156**
Halezov, A. D. Approximate calculation of optimal strategy in games with a fixed sequence of moves and incomplete information. (Russian) **80d:90093**
Homma, Hisafumi *See* **Tanaka, Kensuke, 80g:90125**
Janovskaja, E. B. Antagonistic games. (Russian) **80b:90145**
Kindler, Jürgen Über Spiele auf konvexen Mengen. **80c:90157**
Kuineruk, Ju. I. *See* **Bil'čuk, V. M., 80g:90124**
Leitmann, George On generalized Stackelberg strategies. **80e:90129**
Malafeev, O. A. The natural metric and equilibrium situations in noncooperative games. (Russian. English summary) **80f:90154**
Maslova, M. I. On Toeplitz games. (Russian) **80e:90130**
Morozov, V. V. Mixed strategies in a game with vector payoffs. (Russian) **80b:90146**
Moulin, Hervé (*with* Vial, J.-P.) Strategically zero-sum games: the class of games whose completely mixed equilibria cannot be improved upon. **80c:90158**
See also **Gerard-Varet, L. A., 80a:90163**
Roth, Alvin E. Two-person games on graphs. **80c:90159**
A note concerning asymmetric games on graphs. **80b:90147**
Sakaguchi, Minoru Correction to: "Marksmanship contents—non-zero-sum game of timing" [Math. Japon. **22** (1977/78), no. 5, 585–596; MR **58** #4371]. **80k:90040**
Schaefer, Thomas J. On the complexity of some two-person perfect-information games. **80c:90131**
Selfert, H. G. Two-person zero-sum games with non-Archimedean preferences. **80c:90160**
Šolpo, I. A. Application of coalitionfree games in the normal form for justifying arbitrage schemes. (Russian) **80i:90105**
Solutions of arbitration schemes as equilibrium points of coalitionless games in normal form. **80j:90117**
Tan, K. T. An easy Nim type game. **80i:90106**
Tanaka, Kensuke (*with* Homma, Hisafumi) On the learning algorithm of 2-person zero-sum game. **80g:90125**
Thorp, Edward O. The probability that a matrix has a saddle point. **80a:90165**
Tijs, S. H. The structure of the solution sets of zero-sum games. **80j:90118**
Vial, J.-P. *See* **Moulin, Hervé, 80c:90158**
Viaud, D. Une formalisation du jeu de Mastermind. (English summary) **80g:90126**
Yamasaki, Yōhei Theory of division games. **80e:90132**

Secondary classifications:

Avenhaus, Rudolf (*with* Frick, H.) Analyse von Fehlalarmen in Überwachungssystemen mit Hilfe von Zweipersonen-Nichtnullsummenspielen. **(80b:90174)**
Azamov, A. Construction of optimal strategies in an infinite game between two persons. **(80d:90109)**
Bagchi, Arunabha (*with* Olsder, Geert Jan) A stochastic differential game as control problem with infinite-dimensional state space. **(80e:93108)**
Baizakov, I. B. A game problem with incomplete information. (Russian. Kazakh summary) **(80a:93147)**
Bicknell-Johnson, Marjorie *See* **Hoggatt, Verner E., Jr., (80m:10005)**
Davydov, È. G. ★Методы и модели теории антагонистических игр. (Russian) [Methods and models of the theory of antagonistic games] **(80h:90003)**
Frick, H. *See* **Avenhaus, Rudolf, (80b:90174)**
Heymann, Michael (*with* Pachter, Meir; Stern, Ronald J.) Two-player control problems with subspace targets. **(80a:93110)**
Hoggatt, Verner E., Jr. (*with* Bicknell-Johnson, Marjorie) Representations of integers in terms of greatest integer functions and the golden section ratio. **(80m:10005)**
Horadam, A. F. Wythoff pairs. **(80c:10016)**
Ling, Kang On two-move prediction games. **(80d:90106)**
Muhamediev, B. M. Solution of the bilinear programming problem and the determination of all equilibrium situations in bimatrix games. (Russian) **(80c:90119)**
Olsder, Geert Jan *See* **Bagchi, Arunabha, (80e:93108)**
Pachter, Meir *See* **Heymann, Michael; et al., (80a:93110)**
Richter, Marcel K. (*with* Shapiro, Leonard) Revelations of a gambler. **(80e:90011)**
Sanghvi, Arun P. Stochastic reaction functions in 2×2 duopoly. **(80c:90033)**
Shapiro, Leonard *See* **Richter, Marcel K., (80e:90011)**
Soule, Stephen The implementation of a Go board. **(80d:68117)**
Stern, Ronald J. *See* **Heymann, Michael; et al., (80a:93110)**

90D10 *n*-person games, noncooperative

Ahmetkaziev, A. (*with* Konurbaeva, B. M.) A game with priorities. (Russian) **80b:90148**
Fishburn, Peter C. Noncooperative stochastic dominance games. **80j:90119**
Ivanilov, Ju. P. (*with* Muhamediev, B. M.) Determination of all equilibrium situations for a class of finite noncooperative *n*-person games. **80e:90133**
Janovskaja, E. B. Weakly $\tilde{M}$-stable sets in general nonstrategic games. (Russian. English summary) **80g:90127**
Equilibrium points in general noncooperative games and their mixed extensions. (Russian. English summary) **80g:90128**
Konurbaeva, B. M. *See* **Ahmetkaziev, A., 80b:90148**
Kreps, V. L. Maximality of linear spaces of noncooperative *N*-person games with equilibrium points. (Russian. English summary) **80i:90107**
Luenberger, D. G. Complete stability of noncooperative games. **80a:90164**
Malafeev, O. A. Finiteness of the set of equilibrium situations in the noncooperative game. (Russian) **80e:90134**
Muhamediev, B. M. *See* **Ivanilov, Ju. P., 80e:90133**
Myerson, Roger B. Refinements of the Nash equilibrium concept. **80a:90165**
Potapov, S. V. *See* **Šmel'fenig, O. V., 80i:90110**
Rosen, V. V. Ordered events games on graphs admitting chance moves. (German and Russian summaries) **80e:90135**
Rozen, V. V. The direct product of games with ordered outcomes. (Russian) **80i:90108**
Šananin, A. A. Dynamic games with a hierarchical vector of interests. (Russian) **80i:90109**
Shenoy, Prakash P. A solution for noncooperative games. **80e:90161**
Shilony, Yuval A note on the presentation and solution of infinite games. **80k:90041**
Šmel'fenig, O. V. (*with* Potapov, S. V.) Factorization of games. (Russian) **80i:90110**
Šolpo, I. A. A class of two-person hierarchical games. (Russian) **80e:90136**
Uchida, Kenkō On existence of a Nash equilibrium point in *N*-person nonzero sum stochastic differential games. **80i:90111**
Vorob'ev, Nikolaĭ Nikolaevič Noncooperative games. (Russian) **80c:90162**

Secondary classifications:

Brams, Steven J. (*with* Straffin, Philip D., Jr.) Prisoner's dilemma and professional sports drafts. **(80f:90176)**
Khalil, Hassan K. (*with* Kokotović, Petar V.) Control of linear systems with multiparameter singular perturbations. **(80b:93068)**
Kokotović, Petar V. *See* **Khalil, Hassan K., (80b:93068)**
Malafeev, O. A. Existence of situations in *E*-equilibrium for mixed strategies in differential games without coalitions. (Russian) **(80k:90046)**
Straffin, Philip D., Jr. *See* **Brams, Steven J., (80f:90176)**
Tyiko, N. M. Tree-like hierarchy model of control. (Russian) **(80e:93076)**
Vaisbord, È. M. (*with* Žukovskiĭ, V. I.) A hierarchical differential two-person game. (Russian) **(80e:90160)**
Wierzbicki, Andrzej P. On the use of penalty functions in multiobjective optimization. **(80e:90105)**
Žukovskiĭ, V. I. *See* **Vaisbord, E. M., (80e:90160)**

90D12 *n*-person games, cooperative, solution concepts

Ahmetkaziev, A. Solution of a dyadic game. (Russian) **80b:90166**
Amellańczyk, Andrzej Domination and nondomination solutions of multicriterion optimization problems. (Polish. Russian and English summaries) **80b:90149**
Apynis, Antanas A game value concept connected with the Banzhaf index. (Russian. Lithuanian and English summaries) **80b:90150**
Bondareva, O. N. (*with* Kulakovskaja, T. E.; Naumova, N. I.) The solution of an arbitrary four-person cooperative game. (Russian. English summary) **80g:90129**
Borenštein, O. Ju. Equilibrium points in general strategic games with additive payoffs. (Russian. English summary) **80e:90137**
Demčuk, V. S. Existence of a nonempty *C*-core in a certain class of differential cooperative games. (Russian) **80e:90138**
Djubin, G. N. Shapley's value for games with infinitely many players. (Russian. English summary) **80h:90167**
Egea, Marcel Jeux réguliers sur un anneau booléen de coalitions. (English summary) **80h:90169**
Enikeeva, F. G. Determination of all extremal cooperative five-person games. (Russian) **80b:90151**
Golčenko, O. G. Optimal coalitions in games with transferability. (Russian) **80b:90152**
Goodman, John C. A note on: "Existence and uniqueness of equilibrium points for concave *n*-person games" [Econometrica **33** (1965), 520–534; MR **33** #2423] by J. B. Rosen. **80k:90042**
Husain, Taqdir *See* **Tarafdar, E., 80d:90094**
Ichiishi, T. (*with* Weber, Sh.) Some theorems on the core of a non-sidepayment game with a measure space of players. **80a:90166**
Janovskaja, E. B. The *C*-core in general nonstrategic games. (Russian. Lithuanian and English summaries) **80h:90170**
Kikuta, Kensaku A lower bound of an imputation of a game. (Japanese summary) **80i:90112**
Konurbaev, T. T. Discriminating solutions of trivalent games. (Russian) **80b:90153**
Kulakovskaja, T. E. *See* **Bondareva, O. N.; et al., 80g:90129**
Mareš, Milan General coalition-games. **80a:90167**
Dynamic solution of general coalition-games. **80a:90168**
Additivity in general coalition-games. **80b:90154**
Transformations of general coalition-games. (Russian summary) **80m:90087**
Men'šikova, O. R. Necessary and sufficient conditions of core coincidence and the solution in a symmetric cooperative game. (Russian. English summary) **80h:90171**
Milnor, J. W. (*with* Shapley, L. S.) Values of large games. II. Oceanic games. **80b:90155**
Mkrtčjan, S. M. Analytic determination of Shapley's vector for a generalized balanced market. (Russian. Lithuanian and English summaries) **80b:90156**
Myerson, Roger B. Threat equilibria and fair settlements in cooperative games. **80b:90157**
Naumova, N. I. *M*-systems of relations and their application in cooperative games. (Russian. English summary) **80f:90155**
See also **Bondareva, O. N.; et al., 80g:90129**
Nazin, A. V. (*with* Poznjak, A. S.) Matrix games of *N* persons with uncertainty conditions. (Russian) **80c:90163**
Novikova, N. M. A hierarchical *n*-person game with controlled coalition structure. (Russian) **80i:90113**
Orazov, E. T. A class of cooperative games. (Russian) **80b:90158**
Pečerskiĭ, Sergei The Shapley value for games without side payments. (Russian. Lithuanian and English summaries) **80b:90159**
Poznjak, A. S. *See* **Nazin, A. V., 80c:90163**
(Rosen, J. B.) *See* **Goodman, John C., 80k:90042**
Roth, Alvin E. Proportional solutions to the bargaining problem. **80e:90139**
Schofield, N. Generalised bargaining sets for cooperative games. **80a:90169**
Shaki, Ahiezer S. Algebraic solutions of partizan games with cycles. **80h:90172**
Shapley, L. S. *See* **Milnor, J. W., 80b:90155**

Sharkey, William W. Existence of a core when there are increasing returns. **80f:90156**
Shenoy, Prakash P. On coalition formation in simple games: a mathematical analysis of Caplow's and Gamson's theories. **80a:90170**
Sobolev, A. I. Nonlinear analogues of Shapley's value. (Russian. English summary) **80b:90168**
Šoĭman, M. S. Repeating games with changing value of the payment unit. I. Attainable vectors of the winnings. **80i:90114**
Szidarovszky, Ferenc On the connection between certain methods of game theory. (Hungarian. English summary) **80e:90140**
On the generalization of Nash's cooperative solution concept. (Hungarian. English and Russian summaries) **80a:90171**
Turafdar, E. (*with* Husain, Taqdir) On the existence of Nash equilibrium points. **80d:90094**
Vaulescu, E. N. On extensive games and almost complete information. **80m:90088**
Vaĭl'ev, V. A. Support function of a convex cooperative game. (Russian) **80h:90173**
Polynomial cores of cooperative games. (Russian) **80i:90115**
Vilkas, Edvardas Two game-theoretic theorems. (Russian. Lithuanian and English summaries) **80a:90172**
Weber, Sh. *See* Ichiishi, T., **80a:90166**
Weidner, Hans G. Gewinnkoalitionen gewichteter Majoritätsspiele. **80d:90095**

Secondary classifications:

Kalai, Ehud (*with* Postlewaite, Andrew; Roberts, John) Barriers to trade and disadvantageous middlemen: nonmonotonicity of the core. **(80c:90185)**
Peleg, Bezalel Representation of simple games by social choice functions. **(80i:90015)**
Postlewaite, Andrew *See* Kalai, Ehud; et al., **(80c:90185)**
Roberts, John *See* Kalai, Ehud; et al., **(80c:90185)**

90D13 Infinite games

Neyman, Abraham Continuous values are diagonal. **80a:90174**
(*with* Tauman, Yair) The partition value. **80f:90157**
Tauman, Yair A nondiagonal value on a reproducing space. **80a:90173**
See also Neyman, Abraham, **80f:90157**

Secondary classifications:

Conway, John H. Loopy games. **(80h:90179)**
Kaneko, Mamoru Price oligopoly as a cooperative game. **(80f:90177)**

90D15 Multistage games, stochastic [See also 93E05.]

Djubin, G. N. A statistical parameter estimation game for geometric distribution. (Russian. English summary) **80e:90141**
Fedorov, V. V. A two-step stochastic decision-making problem with noncoincident interests on the part of the participants. **80c:90164**
Raghavan, T. E. S. Some remarks on matrix games and nonnegative matrices. **80d:90096**
Zuev, L. A. Small parameter method for a certain class of stochastic differential games. (Russian) **80e:90142**

Secondary classifications:

Molostvov, V. S. Equilibrium strategies in a differential stochastic game. (Russian) **(80b:93131)**
Nazin, A. V. Game approach to the solution of a problem of stochastic programming. **(80c:90112)**
Uchida, Kenkō On existence of a Nash equilibrium point in *N*-person nonzero sum stochastic differential games. **(80i:90111)**

90D20 Multistage games, recursive

Başar, Tamer (*with* Selbuz, Hasan) Closed-loop Stackelberg strategies with applications in the optimal control of multilevel systems. **80j:90120**
Danil'čenko, T. N. (*with* Kononenko, A. F.) Regularization of many-step games between two persons with a fixed sequence of moves. **80a:90175**
Doležal, Jaroslav Stackelberg solution concept for general multistage games. **80b:90160**
Houma, Hisafumi *See* Tanaka, Kensuke, **80g:90130**
Kadane, Joseph B. Reversibility of a multilateral sequential game: proof of a conjecture of Sakaguchi. (Japanese summary) **80a:90176**
Kononenko, A. F. *See* Danil'čenko, T. N., **80a:90175**
Rubinstein, Ariel Equilibrium in supergames with the overtaking criterion. **80i:90116**
Sakaguchi, Minoru A bilateral sequential game for sums of bivariate random variables. (Japanese summary) **80a:90177**
Selbuz, Hasan *See* Başar, Tamer, **80j:90120**
Tanaka, Kensuke (*with* Homma, Hisafumi) Continuous time noncooperative *n*-person Markov games. **80g:90130**

Secondary classifications:

Namekata, Tsuneyuki (*with* Tabata, Yoshio; Nishida, Toshio) A sequential allocation problem with two kinds of targets. (Japanese summary) **(80c:90146)**
Nishida, Toshio *See* Namekata, Tsuneyuki; et al., **(80c:90146)**
Tabata, Yoshio *See* Namekata, Tsuneyuki; et al., **(80c:90146)**

90D25 Differential games

Albul, A. V. (*with* Sokolov, B. N.; Černous'ko, F. L.) A method for calculating control in conflict situations. (Russian) **80b:90161**
Behroozi, F. (*with* Gagnon, R.) Cyclic pursuit in a plane. **80k:90043**
Bernhard, P. Linear-quadratic, two-person, zero-sum differential games: necessary and sufficient conditions. **80c:90165**
Breakwell, J. V. (*with* Hagedorn, P.) Point capture of two evaders in succession. **80b:90162**
Čebotaru, I. S. *See* Prodan, N. V., **80g:90132**
Černous'ko, F. L. *See* Albul, A. V.; et al., **80b:90161**
Čigir', S. A. On the linear game problem of convergence with incomplete information. **80e:90143**
Čikrii, A. A. Sufficient conditions for deviation in nonlinear differential games. (Russian) **80j:90121**
(*with* Čikrii, G. C.) The problem of deviation from meeting a solid objective set. (Russian. English summary) **80h:90174**
Nonlinear differential games of evasion. (Russian) **80k:90044a**
Escape conditions of higher orders in nonlinear differential games. (Russian. English summary) **80k:90044b**
Čikrii, G. C. *See* Čikrii, A. A., **80h:90174**
Clemhout, Simone (*with* Wan, Henry Y., Jr.) Interactive economic dynamics and differential games. **80b:90163**
Cruz, J. B., Jr. *See* Papavassilopoulos, G. P., **80c:90169**; Papavassilopoulos, G. P.; et al., **80c:90170** *and* Salman, M. A., **80e:90145**
Danilov, N. N. The structure of a Pareto set in a nonantagonistic differential game. (Russian) **80f:90158**
Doležal, Jaroslav Optimal parameter estimation in two-player zero-sum differential games. **80i:90117**
A gradient-type algorithm for the numerical solution of two-player zero-sum differential game problems. **80j:90123**
(*with* Thoma, M.) On the numerical solution of *N*-player non-zero-sum differential games via Nash solution concept. (Russian summary) **80j:90122**
Èĭmanatov, B. The problem of deviation from an encounter in differential *n*-person games. (Russian) **80m:90089**
Filippov, S. D. The solvability of some approach and deviation problems under conditions of incomplete information. (Russian) **80f:90159**
Fleming, Wendell H. (*with* Tsai, Chun Ping) Minimum exit probabilities and differential games. **80g:90131**
Gabrieljan, M. S. Determination of the strategy and proof of the alternative for a differential game with several target sets in varying systems. (Russian. Armenian and English summaries) **80h:90175**
Gagnon, R. *See* Behroozi, F., **80k:90043**
Gusjatnikov, P. B. (*with* Ledjaev, Ju. S.) A small parameter in a differential evasion game. (Russian) **80a:90178**
(*with* Mezencev, A. V.) The problem of evading many pursuers when integral constraints are involved. (Russian) **80c:90166**
Hačatrjan, R. V. A class of differential games with independent motions and discrete progression of information. (Russian) **80f:90160**
Hagedorn, P. *See* Breakwell, J. V., **80b:90162**
Hexner, G. A differential game of incomplete information. **80c:90144**
Heymann, Michael (*with* Pachter, Meir) On the max-min pursuit game. **80i:90118**
Ivkin, S. A. *See* Vagin, V. N., **80d:90099**
Jugai, L. P. *l*-deviation from contact in a linear differential *n*-person game. (Russian) **80k:90045**
Kljušin, Ja. G. Information structure of differential games. (Russian. English summary) **80f:90161**
Kuz'min, V. P. The numerical solution of a Bellman equation for a game-theoretic pursuit problem in a plane. (Russian) **80b:90164**
Ledjaev, Ju. S. *See* Gusjatnikov, P. B., **80a:90178**
Leitmann, George (*with* Schmitendorf, W. E.) Profit maximization through advertising: a nonzero sum differential game approach. **80b:90165**
Lucenko, M. M. A problem of δ-encounter on a compactum. (Russian. English summary) **80f:90162**
Lutmanov, S. V. On an alternative in a several-person differential game. **80c:90167**
Makarov, N. N. A condition of continuous choice of representative measures in a finite-dimensional convex compactum. (Russian. English summary) **80f:90163**
Malafeev, O. A. Existence of situations in *E*-equilibrium for mixed strategies in differential games without coalitions. (Russian) **80k:90046**
Mamedov, M. B. Application of differential games with a fixed sequence of moves to the problem of the rational granting of credit to an enterprise by a bank. (Russian. Azerbaijani and English summaries) **80f:90164**
Medanić, J. V. *See* Papavassilopoulos, G. P.; et al., **80c:90170**
Mezencev, A. V. *See* Gusjatnikov, P. B., **80c:90166**
Model', B. I. A certain class of differential games. **80d:90097**
Ostapenko, V. V. A differential evasion game with several pursuers. (Russian. English summary) **80c:90168**
Pachter, Meir *See* Heymann, Michael, **80i:90118**
Papavassilopoulos, G. P. (*with* Cruz, J. B., Jr.) On the uniqueness of Nash strategies for a class of analytic differential games. **80c:90169**
(*with* Medanić, J. V.; Cruz, J. B., Jr.) On the existence of Nash strategies and solutions to coupled Riccati equations in linear-quadratic games. **80c:90170**
Petrosjan, L. A. Nonantagonistic differential games. (Russian) **80f:90165**
Poliščuk, E. G. Computation of value for certain differential games. **80c:90171**
Reduction of linear differential games. (Russian) **80i:90119**
Ponomarev, A. P. On a class of differential games of pursuit. **80a:90179**
Poteraşu, Victor Florin Sensitivity synthesis of optimal strategies for distributed parameter differential games. II. Sensitivity games. (Romanian summary) **80b:90166**
Prodan, N. V. (*with* Čebotaru, I. S.) Necessary optimality conditions in differential games. (Russian) **80g:90132**
Rappoport, I. S. A linear differential game of several persons with limited control resources. (Russian. English summary) **80c:90172**
A pursuit problem for several control objects in the presence of integral constraints. (Russian. English summary) **80f:90166**
Reed, Harry L., Jr. Some bounds for optimal maneuvers and predictors. **80c:90173**
Salman, M. A. (*with* Cruz, J. B., Jr.) Well-posedness of linear closed-loop Stackelberg strategies for singularly perturbed systems. **80c:90145**

Schmitendorf, W. E. *See* **Leitmann, George, 80b:90165**
Sokolov, B. N. *See* **Albul, A. V.; et al., 80b:90161**
Subbotin, A. I. (*with* Subbotina, N. N.) Necessary and sufficient conditions for the piecewise smooth value of a differential game. (Russian) **80c:90174**
Subbotina, N. N. *See* **Subbotin, A. I., 80c:90174**
Taylor, James G. Some simple victory-prediction conditions for Lanchester-type combat between two homogeneous forces with supporting fires. **80d:90098**
Optimal commitment of forces in some Lanchester-type combat models. **80c:90175**
Prediction of zero points of solutions to Lanchester-type differential combat equations for modern warfare. **80c:90176**
Thoma, M. *See* **Doležal, Jaroslav, 80j:90122**
Tomskiĭ, G. V. Piecewise synthesizing strategies in differential games. (Russian) **80f:90167**
Trybus, Leszek Nonzero-sum feedback differential game with a linear, symmetric, hyperbolic system. **80b:90167**
Tsai, Chun Ping *See* **Fleming, Wendell H., 80g:90131**
Tzafestas, Spyros G. Multiplayer distributed-parameter differential games with sampled-state feedback control. **80f:90168**
Uchida, Kenkō A note on the existence of a Nash equilibrium point in stochastic differential games. **80c:90177**
Uhobotov, V. I. On a class of differential games with an integral constraint. **80c:90178**
Vagin, V. N. (*with* Ivkin, S. A.) Finding an optimal trajectory for a sensor where the target distribution is probabilistic. **80d:90099**
Vaisburd, I. F. A differential deviation game for systems with distributed parameters. (Russian) **80a:90180**
Varga, Z. Least-squares solution for N-person multicriteria differential games. **80c:90146**
On a cooperative pursuit-evasion game. (Russian) **80f:90169**
Wan, Henry Y., Jr. *See* **Clemhout, Simone, 80b:90163**
Zaremba, L. S. On the existence of value in the Varaiya-Lin sense in differential games of pursuit and evasion. **80i:90120**
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Başar, Tamer Stochastic stagewise Stackelberg strategies for linear quadratic systems. **(80g:93069)**
Deal, K. (*with* Sethi, Suresh P.; Thompson, G. L.) A bilinear-quadratic differential game in advertising. **(80g:90137)**
Dore, M. H. I. Optimal resource allocation as a differential game. **(80g:90143)**
Hájek, Otomar Discontinuous differential equations. I, II. **(80i:49030)**
Krasovskiĭ, N. N. On differential evolution systems. **(80e:93067)**
Differential games. Approximate and formal models. (Russian) **(80h:93077)**
(Liu, Pan Tai) *See* **Differential games and control theory, (80d:90001)**
Molostvov, V. S. Equilibrium strategies in a differential stochastic game. (Russian) **(80b:93131)**
(Roxin, Emilio O.) *See* **Differential games and control theory, (80d:90001)**
Sethi, Suresh P. *See* **Deal, K.; et al., (80g:90137)**
(Sternberg, Robert L.) *See* **Differential games and control theory, (80d:90001)**
Taylor, James G. Recent developments in the Lanchester theory of combat. (French summary) **(80e:90159)**
Thompson, G. L. *See* **Deal, K.; et al., (80g:90137)**
Thomsen, Wolfgang On a Fubini-type theorem and its application in game theory. (German and French summaries) **(80c:28005)**
Uchida, Kenkō On existence of a Nash equilibrium point in N-person nonzero sum stochastic differential games. **(80i:90111)**
Vaĭsbord, È. M. (*with* Žukovskiĭ, V. I.) A hierarchical differential two-person game. (Russian) **(80e:90160)**
Žukovskiĭ, V. I. *See* **Vaĭsbord, È. M., (80e:90160)**
Conference:
Kingston, Differential Games and Control Theory *See* **Differential games and control theory, (80d:90001)**
Control theory *See* **Differential games and control theory, (80d:90001)**
Differential games and control theory ★Differential games and control theory. II. **(80d:90001)**
Kingston, R.I. *See* **Differential games and control theory, (80d:90001)**

90D26 Pursuit and evasion games

Azamov, A. On the foundations of the theory of discrete pursuit and evasion games. II. (Russian. Uzbek summary) **80j:90124**
Azimov, A. Ja. Quasilinear differential pursuit games. (Russian. Azerbaijani and English summaries) **80j:90125**
Chukwu, Ethelbert Nwakuche Capture in linear functional differential games of pursuit. **80j:90126**
Čigir', S. A. Informational game problems of approach and avoidance. **80j:90127**
Čikrii, A. A. Evasion problem in a linear differential game. **80e:90147**
Technique for evading several pursuers. **80e:90148**
Čistjakov, S. V. On solving pursuit game problems. **80d:90100**
Functional equations in pursuit games. (Russian) **80e:90149**
Fitzgerald, Carl H. The princess and monster differential game. **80i:90121**
Gal, Shmuel Search games with mobile and immobile hider. **80b:90168**
Getz, Wayne M. (*with* Leitmann, George) Qualitative differential games with two targets. **80e:90150**
Gusjatnikov, P. B. The necessity of a certain sufficient condition for optimality of the pursuit time. **80e:90151**
A differential evasion game. (Russian. English summary) **80d:90101**
Krjažimskiĭ, A. V. Stochastic approximation in differential games. (Russian) **80f:90170**
Leitmann, George *See* **Getz, Wayne M., 80e:90150**
Leondes, Cornelius T. (*with* Mons, B.) On-line solution of a stochastic pursuit-evasion game. **80g:90133**
Lewin, J. (*with* Olsder, Geert Jan) Conic surveillance evasion. **80c:90179**
Mizukami, Koichi Differential games with incomplete state information and optimal pursuit-evasion strategies. **80e:90152**
Mons, B. *See* **Leondes, Cornelius T., 80g:90133**
Nguyên van Nhân Jeux différentiels d'interception et de combat aérien: résolution par programmation dynamique différentielle. (English summary) **80f:90108**
Olsder, Geert Jan *See* **Lewin, J., 80c:90179**
Ostapenko, V. V. A nonlinear evasion problem. (Russian. English summary) **80d:90102**
Patsko, V. S. The differential game of evasion in a plane. **80e:90153**
Petrosjan, L. A. *See* **Zenkevič, N. A., 80e:90154** *and* **Slobodinskaja, T. V., 80f:90172**
Rechtschaffen, Edgar E. M. A geometrical difference of sets and some applications. (Portuguese) **80d:90103**
Šimiev, G. V. Pursuit game with infinite linear sequential devices on the field of E. (Russian. Azerbaijani and English summaries) **80f:90171**
Slobodinskaja, T. V. (*with* Petrosjan, L. A.) Antagonistic pursuit game with several participants and incomplete information. (Russian) **80f:90172**
Zenkevič, N. A. (*with* Petrosjan, L. A.) Differential games with discrete progression of information receiving by one of the players. (Russian) **80e:90154**

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Nonlinear differential games of evasion. (Russian) **(80k:90044a)**
Escape conditions of higher orders in nonlinear differential games. (Russian. English summary) **(80k:90044b)**
Skowroński, J. M. *See* **Vincent, Thomas L., (80i:93015)**
Vincent, Thomas L. (*with* Skowroński, J. M.) Controllability with capture. **(80i:93015)**

90D30 Utility theory [See also 90A10.]

Ishikawa, Shin (*with* Nakamura, Kenjiro) On the existence of the core of a characteristic function game with ordinal preferences. (Japanese summary) **80g:90134**
Nakamura, Kenjiro *See* **Ishikawa, Shin, 80g:90134**
Serednìski, F. *See* **Varšavskiĭ, V. I.; et al., 80b:90169**
Subelman, Eduardo J. Optimal betting strategies for favorable games. **80d:90104**
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Secondary classifications:

Zachow, Ernst-Wilhelm Expected utility in two-person games. **(80g:90013)**

90D35 Decision theory [See also 62Cxx, 90A05.]

Banerjee, P. K. (*with* Kalbfleisch, J. G.; Viswanathan, B.) Three-way decision with a coin. **80c:90180**
Barkalov, A. V. (*with* Strongin, R. G.) A dynamic examination of compromise solutions in multiperson conflict. (Russian) **80c:90181**
Brock, Horace W. The use of symmetry groups in the representation and interpretation of alternative theories of fair distribution. **80i:90122**
Gurin, L. G. A principle of decision making in the presence of random and unspecified factors. (Russian) **80f:90173**
Heindl, G. G-Optimale Entscheidungen bei mehrfacher Zielsetzung. **80d:90105**
Kalbfleisch, J. G. *See* **Banerjee, P. K.; et al., 80c:90180**
Kononov, B. P. Stationary logic in decision making. (Russian. English and German summaries) **80b:90170**
Ling, Kang On two-move prediction games. **80d:90106**
Marchi, Ezio On the description of the space of movements and decision-making of one living being. **80d:90107**
Matsuda, Takehiko (*with* Takatsu, Shinzo) Characterization of satisficing decision criterion. **80f:90174**
Morkeliūnas, A. Decision making in uncertainty without quantitative estimates of outcomes. (Russian. Lithuanian and English summaries) **80e:90155**
Sakaguchi, Minoru A generalized secretary problem with uncertain employment. **80d:90108**
Strongin, R. G. *See* **Barkalov, A. V., 80c:90181**
Takatsu, Shinzo *See* **Matsuda, Takehiko, 80f:90174**
Viswanathan, B. *See* **Banerjee, P. K.; et al., 80c:90180**
Yu, P. L. Second-order game problem: decision dynamics in gaming phenomena. **80c:90182**

Secondary classifications:

Crawford, Vincent P. A procedure for generating Pareto-efficient egalitarian-equivalent allocations. **(80b:90019)**
Farber, M. Š. *See* **Gamidov, R. G., (80c:90134)**
Fedorov, V. V. A two-step stochastic decision-making problem with noncoincident interests on the part of the participants. **(80c:90164)**
Gamidov, R. G. (*with* Farber, M. Š.) Decision making in multicriteria optimization problems. (Russian. Azerbaijani and English summaries) **(80c:90134)**
Kijima, Kyoichi *See* **Takahara, Yasuhiko; et al., (80a:90008)**
Nakano, Bunpeĭ *See* **Takahara, Yasuhiko; et al., (80a:90008)**
Rothkopf, Michael H. *See* **Stark, Robert M., (80c:90039)**
Stark, Robert M. (*with* Rothkopf, Michael H.) Competitive bidding: a comprehensive bibliography. **(80c:90039)**

Subelman, Eduardo J. Optimal betting strategies for favorable games. (80d:90104)
Takahara, Yasuhiko (*with* Nakano, Bunpei'; Kijima, Kyoichi) Characterization of the satisfactory decision principle. (Japanese summary) (80a:90008)
Tamaki, Mitsushi OLA policy and the best choice problem with random number of objects. (80m:62079)
Vorob'ev, Nikolai Nikolaevič Nash's optimality principle for general bargaining schemes. (Russian. English summary) (80g:90141)
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Competitive bidding *See* Stark, Robert M.; et al., (80c:90039)

90D40 Game theory models [See also 65Cxx, 68Cxx, 68Jxx.]

Albright, S. Christian (*with* Winston, Wayne) A probabilistic model of winners' outs versus losers' outs rules in basketball. 80a:90181
Babina, N. B. A resource allocation problem with noncontradictory interests. (Russian) 80e:90156
Bennett, P. G. (*with* Dando, M. R.) Complex strategic analysis: a hypergame study of the fall of France. 80b:90172
Blum, Howard Stochastic control and game aspects in a birth-death model for selling assets with a deadline. 80g:90135
Clemhout, Simone A life-cycle theory of marriage and divorce: a Pareto optimal differential game model. 80g:90136
Crawford, Vincent P. (*with* Heller, Walter Perrin) Fair division with indivisible commodities. 80b:90171
Dando, M. R. *See* Bennett, P. G., 80b:90172
Deal, K. (*with* Sethi, Suresh P.; Thompson, G. L.) A bilinear-quadratic differential game in advertising. 80g:90137
Eichhorn, Wolfgang Generalized Nash equilibrium points for the theory of oligopoly. 80m:90090
Heller, Walter Perrin *See* Crawford, Vincent P., 80b:90171
Höpfinger, E. (*with* von Winterfeldt, D.) A dynamic model for setting railway noise standards. 80m:90091
Kagiwada, Harriet (*with* Kalaba, Robert E.) C^3 modeling. 80g:90138
Kalaba, Robert E. *See* Kagiwada, Harriet, 80g:90138
Kulizabaev, N. Game analysis of models of a "supplier-consumer" system. (Russian) 80e:90157
Kurano, Masami *See* Sakamoto, Takeshi, 80c:90183
Lee, M. (*with* McKelvey, Richard D.; Rosenthal, H.) Game theory and the French apparentements of 1951. 80e:90158
McKelvey, Richard D. *See* Lee, M.; et al., 80e:90158
Rand, David Exotic phenomena in games and duopoly models. 80b:90173
Rao, Ram C. (*with* Rutenberg, David P.) Preempting an alert rival: strategic timing of the first plant by analysis of sophisticated rivalry. 80g:90139
Roberts, John Incentives in planning procedures for the provision of public goods. 80h:90177
Rosenthal, H. *See* Lee, M.; et al., 80e:90158
Rutenberg, David P. *See* Rao, Ram C., 80g:90139
Sakamoto, Takeshi (*with* Kurano, Masami) Stochastic game models for the determination of the optimal continuous sampling inspection plans. 80c:90183
Sanghvi, Arun P. Stochastic reaction functions in 2×2 duopoly. 80c:90033
Sethi, Suresh P. *See* Deal, K.; et al., 80g:90137
Shefrin, H. M. Bayesian convergence in market games with incomplete information. 80g:90140
Taylor, James G. Differential-game examination of optimal time-sequential fire-support strategies. 80a:90182
Recent developments in the Lanchester theory of combat. (French summary) 80e:90159
Thompson, G. L. *See* Deal, K.; et al., 80g:90137
Vorob'ev, Nikolai Nikolaevič Nash's optimality principle for general bargaining schemes. (Russian. English summary) 80g:90141
Weber, Robert James Attainable sets of quasiconcave markets. II. Convexifiable sets. 80h:90178
Winston, Wayne *See* Albright, S. Christian, 80a:90181
von Winterfeldt, D. *See* Höpfinger, E., 80m:90091

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Dubey, Pradeep (*with* Shubik, Martin) Bankruptcy and optimality in a closed trading mass economy modelled as a noncooperative game. (80g:90017)
Germeier, Ju. B. ★Игры с непротивоположными интересами. (Russian) [Games with nonconflicting interests] (80e:90002)
Hurwicz, Leonid Outcome functions yielding Walrasian and Lindahl allocations at Nash equilibrium points. (80j:90033)
Kaneko, Mamoru Price oligopoly as a cooperative game. (80f:90177)
Katz, E. *See* Langholz, G., (80e:68149)
Konurbaeva, B. M. A model of a conflict situation in queueing systems. (Russian) (80c:90067)
Langholz, G. (*with* Katz, E.) Learning automata in a three-move zero-sum game. (80e:68149)
Mamedov, M. B. Application of differential games with a fixed sequence of moves to the problem of the rational granting of credit to an enterprise by a bank. (Russian. Azerbaijani and English summaries) (80f:90164)
Peleg, Bezalel Game theoretic analysis of voting schemes. (80m:90016)
Presman, È. L. (*with* Sonin, I. M.) The "two-armed bandit" problem in continuous time. (Russian) (80g:62058)
Šapanin, A. A. Dynamic games with a hierarchical vector of interests. (Russian) (80i:90109)
Sengupta, Jati K. Optimal resource allocation under stochastic prices and yields. (80m:90041)
Shubik, Martin *See* Dubey, Pradeep, (80g:90017)
Sonin, I. M. *See* Presman, È. L., (80g:62058)
Staroświecki, Marcel (*with* Titren, Yvon) Modelling of a system by local models with typological methods. (Russian summary) (80a:93157)
Taylor, Peter D. Evolutionarily stable strategies with two types of player. (80b:92041)
Titren, Yvon *See* Staroświecki, Marcel, (80a:93157)

90D42 Positional and lattice games

Azamov, A. Construction of optimal strategies in an infinite game between two persons. 80d:90109
Conway, John H. Loopy games. 80h:90179
Jech, Thomas A game theoretic property of Boolean algebras. 80c:90184
Munro, J. Ian *See* Robertson, Edward, 80i:90123
Paul, Jerome L. Partitioning the lattice points in R^n. 80f:90175
Robertson, Edward (*with* Munro, J. Ian) NP-completeness, puzzles and games. 80i:90123
Rozen, V. V. Games with ordered outcomes and monocompactly generated lattices. (Russian) 80g:90142
Vaisbord, È. M. (*with* Žukovskiĭ, V. I.) A hierarchical differential two-person game. (Russian) 80e:90160
Žukovskiĭ, V. I. *See* Vaisbord, È. M., 80e:90160

Secondary classifications:

Čikriĭ, A. A. Nonlinear differential games of evasion. (Russian) (80k:90044a)
Escape conditions of higher orders in nonlinear differential games. (Russian. English summary) (80k:90044b)
Malafeev, O. A. Existence of situations in E-equilibrium for mixed strategies in differential games without coalitions. (Russian) (80k:90046)

90D45 Applications of game theory

Avenhaus, Rudolf (*with* Frick, H.) Analyse von Fehlalarmen in Überwachungssystemen mit Hilfe von Zweipersonen-Nichtnullsummenspielen. 80b:90174
Brams, Steven J. (*with* Straffin, Philip D., Jr.) Prisoner's dilemma and professional sports drafts. 80f:90176
Dore, M. H. I. Optimal resource allocation as a differential game. 80g:90143
Frick, H. *See* Avenhaus, Rudolf, 80b:90174
Kalai, Ehud (*with* Postlewaite, Andrew; Roberts, John) Barriers to trade and disadvantageous middlemen: nonmonotonicity of the core. 80c:90185
Kamien, Morton I. (*with* Megiddo, Nimrod) An intergenerational cake eating game. 80d:90110
Kaneko, Mamoru Price oligopoly as a cooperative game. 80f:90177
Krass, Iosif A. On value of information in game interrelations of economic models. 80f:90178
Megiddo, Nimrod Computational complexity of the game theory approach to cost allocation for a tree. 80a:90183
See also Kamien, Morton I., 80d:90110
Postlewaite, Andrew *See* Kalai, Ehud; et al., 80c:90185
Roberts, John *See* Kalai, Ehud; et al., 80c:90185
Straffin, Philip D., Jr. *See* Brams, Steven J., 80f:90176

Secondary classifications:

Burkov, V. N. (*with* Kondrat'ev, V. V.) Two-level active systems. III. Equilibria in above-board control laws. (80f:93005)
Kondrat'ev, V. V. *See* Burkov, V. N., (80f:93005)
Leitmann, George (*with* Schmitendorf, W. E.) Profit maximization through advertising: a nonzero sum differential game approach. (80b:90165)
Riley, John G. Evolutionary equilibrium strategies. (80d:92033)
Roberts, John Incentives in planning procedures for the provision of public goods. (80h:90177)
Schmitendorf, W. E. *See* Leitmann, George, (80b:90165)
Schulman, L. S. (*with* Seiden, P. E.) Statistical mechanics of a dynamical system based on Conway's game of life. (80a:82021)
Seiden, P. E. *See* Schulman, L. S., (80a:82021)

90D99 None of the above, but in this section

Beltadze, G. N. Multidimensional lexicographic analogues for two classes of antagonistic games. (Russian) 80f:90179
Bjal'skiĭ, M. A. Operations in game categories. (Russian) 80j:90128
Butnariu, Dan Equilibrium point in a two-person fuzzy game. (Romanian. English summary) 80j:90129
An existence theorem for possible solutions of a two-persons fuzzy game. 80e:90161
Chamberlain, Michael W. Rencontre as an odd-even game. 80a:90184
Friedman, James W. Noncooperative equilibria for exit supergames. 80e:90162
Furugjan, M. G. The approximation of the solutions of a certain class of infinite antagonistic games. (Russian) 80a:90185
Heuer, G. A. Uniqueness of equilibrium points in bimatrix games. 80i:90124
Hurwicz, Leonid (*with* Schmeidler, David) Construction of outcome functions guaranteeing existence and Pareto optimality of Nash equilibria. 80a:90186
Kindler, Jürgen Endlichadditive gemischte Erweiterungen von Spielen. 80c:90186
Minimaxtheoreme und das Integraldarstellungsproblem. (English summary) 80i:90125
Kondrat'ev, A. I. *See* Stognii, A. O., 80k:90047
Mathews, J. A. Primal and dual game theoretic solutions with applications to decentralized control. 80g:90144
Podinovskiĭ, V. V. Two-criterial problems with unequally rated criteria. 80j:90130
Sandak, N. N. Games on systems with competing elements. (Russian) 80b:90175
Schmeidler, David *See* Hurwicz, Leonid, 80a:90186

Slobodanin, N. M. Existence of the equilibrium situation in infinite n-person positional games. (Russian) **80f:90180**
Stogali, A. O. (*with* Kondrat'ev, A. I.) The normative theory of games. (Russian. English summary) **80k:90047**
Weymark, John A. *Unselfishness* and prisoner's dilemmas. **80c:90187**

Secondary classifications:

Andrëev, M. V. (*with* Šor, O. I.) Equivalence conditions for multi-step and single-step optimization for control object with memory. (Russian. English summary) **(80k:93120)**
Eisele, Th. On thrifty strategies. **(80f:60057)**
Hassan, Mohamed F. (*with* Singh, Madan G.) Controllers for linear interconnected dynamical systems with prespecified degree of stability. **(80c:93044)**
Malozemov, V. N. (*with* Solomennikov, A. V.) The rate of convergence of the method of equalization of maxima. (Russian) **(80a:65129)**
Murphy, Paul E. (*with* Paull, Marvin C.) Minimum comparison merging of sets of approximately equal size. **(80c:68163)**
Paull, Marvin C. *See* **Murphy, Paul E., (80c:68163)**
Raulut, Burkhard (*with* Schmitz, Norbert; Zachow, Ernst-Wilhelm) ★Spieltheorie. **(80j:90001)**
Rubinov, A. M. A generalization of Choquet's ordering. (Russian. English summary) **(80f:46024)**
Schmitz, Norbert *See* **Raulut, Burkhard; et al., (80j:90001)**
Singh, Madan G. *See* **Hassan, Mohamed F., (80c:93044)**
Smullyan, Raymond M. Trees and ball games. **(80i:04008)**
Solomennikov, A. V. *See* **Malozemov, V. N., (80a:65129)**
Šor, O. I. *See* **Andrëev, M. V., (80b:93120)**
Tijs, S. H. Approximation of infinite linear programs in games with finite subprograms in subgames. **(80f:90081)**
Zachow, Ernst-Wilhelm *See* **Raulut, Burkhard; et al., (80j:90001)**

92–XX BIOLOGY AND BEHAVIORAL SCIENCES

92–01 Elementary exposition, textbooks

Moiseev, N. N. Systems analysis of dynamical processes of the biosphere. Systems analysis and mathematical models. (Russian) **80i:92001**

Secondary classifications:

Bender, Edward A. ★An introduction to mathematical modeling. **(80c:00001a)**
Kapur, J. N. Optimization in mathematics, statistics, economics, operations research, science and technology. **(80h:00003)**
Vemuri, V. ★Modeling of complex systems. **(80c:00001b)**

92–02 Advanced exposition (research surveys, monographs, etc.)

Brankov, G. Fundamental problems of biomechanics. (Russian. English summary) **80c:92001**
Wasserman, Stanley S. Models for binary directed graphs and their applications. **80a:92001**

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Bočkarev, S. V. The method of averaging in the theory of orthogonal series and some questions in the theory of bases. (Russian) **(80j:42043)**
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Rocklin, S. M. *See* **Oster, George F., (80k:92005)**
Sussmann, Héctor J. (*with* Zahler, Raphael S.) Catastrophe theory as applied to the social and biological sciences: a critique. **(80h:58001)**
Zahler, Raphael S. *See* **Sussmann, Héctor J., (80h:58001)**
Edinburgh *See* **Nonlinear analysis and mechanics: Heriot-Watt Symposium, (80d:00015)**
Mechanics *See* **Nonlinear analysis and mechanics: Heriot-Watt Symposium, (80d:00015)**
Nonlinear analysis and mechanics: Heriot-Watt Symposium ★Nonlinear analysis and mechanics: Heriot-Watt Symposium. Vol. III. **(80d:00015)**
Symposium:
  Heriot-Watt, Nonlinear Analysis and Mechanics *See* **Nonlinear analysis and mechanics: Heriot-Watt Symposium, (80d:00015)**

92–03 Historical (must also be assigned at least one classification number from Section 01)

(Brownlee, John) *See* **Fine, Paul E. M., 80g:92001**
Fine, Paul E. M. John Brownlee and the measurement of infectiousness: an historical study in epidemic theory. **80g:92001**

Secondary classifications:

Box, Joan Fisher ★R. A. Fisher. **(80i:62002)**
(Fisher, Ronald A.) *See* **Box, Joan Fisher, (80i:62002)**
Karpenko, B. I. ★Развитие идей и категорий математической статистики. (Russian) [The development of ideas and categories of mathematical statistics] **(80k:01035)**
(Kolmogorov, A. N.) *See* **Golden age of theoretical ecology: 1923–1940, (80c:01021)**
(Kostitzin, V. A.) *See* **Golden age of theoretical ecology: 1923–1940, (80c:01021)**
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(Scudo, Francesco M.) *See* **Golden age of theoretical ecology: 1923–1940, (80c:01021)**
(Volterra, V.) *See* **Golden age of theoretical ecology: 1923–1940, (80c:01021)**
(Ziegler, James R.) *See* **Golden age of theoretical ecology: 1923–1940, (80c:01021)**
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92–04 Explicit machine computation and programs (not the theory of computation or programming)

Bali, H. N. *See* **Hill, W. J.; et al., 80e:92001**
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92–06 Proceedings, conferences, etc.

(Buffon, Georges Louis) *See* **Geometrical probability and biological structures: Buffon's 200th anniversary, 80a:92003**
(Cobb, Loren) *See* **Applications of catastrophe theory in the behavioral and life sciences, 80a:92002**
(Levin, Simon A.) *See* **Some mathematical questions in biology, 80a:92005** *and* **Some mathematical questions in biology, 80a:92006**
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  Death of Georges Louis Buffon *See* **Geometrical probability and biological structures: Buffon's 200th anniversary, 80a:92003**
Applications of catastrophe theory in the behavioral and life sciences ★Applications of catastrophe theory in the behavioral and life sciences. **80a:92002**
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Biological systems *See* **Conference: Deterministic Differential Equations and Stochastic Processes Models for Biological Systems, 80d:92001**
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Catastrophe theory *See* **Applications of catastrophe theory in the behavioral and life sciences, 80a:92002**
Conference:
  Deterministic Differential Equations and Stochastic Processes Models for Biological Systems ★Conference on Deterministic Differential Equations and Stochastic Processes Models for Biological Systems. **80d:92001**
Denver, Colo. *See* **Some mathematical questions in biology, 80a:92005**
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Environmental systems *See* **Modeling, identification and control in environmental systems, 80a:92004**
Geometrical probability and biological structures: Buffon's 200th anniversary ★Geometrical probability and biological structures: Buffon's 200th anniversary. **80a:92003**
Ghent *See* **Modeling, identification and control in environmental systems, 80a:92004**
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  Modeling and Simulation of Land, Air and Water Resources Systems *See* **Modeling, identification and control in environmental systems, 80a:92004**
Image analysis *See* **Geometrical probability and biological structures: Buffon's 200th anniversary, 80a:92003**
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Mathematics for biology ★Mathematics for biology. (Japanese) **80e:92002**
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Paris *See* **Geometrical probability and biological structures: Buffon's 200th anniversary, 80a:92003**
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(Elkemeier, Horst) *See* **Structural stability in physics, (80j:00017)**
(Gupta, Madan M.) *See* **Advances in fuzzy set theory and applications, (80k:00006)**
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(Levin, Simon A.) *See* **Studies in mathematical biology, (80m:92005)** *and* **Studies in mathematical biology, (80m:92006)**
(Ragade, Rammohan K.) *See* **Advances in fuzzy set theory and applications, (80k:00006)**
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Cybernetics and Systems *See* **Current topics in cybernetics and systems, (80a:68001)**
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Studies in mathematical biology ★Studies in mathematical biology. Part I. **(80m:92005)** ★Studies in mathematical biology. Part II. **(80m:92006)**
Symposia:
Applications of Catastrophe Theory and Topological Concepts in Physics *See* **Structural stability in physics, (80j:00017)**
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Sermange, Michel Study of a few equations based on the Hodgkin-Huxley model. **80a:92021**
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Timischl, Werner *See* **Nöbauer, Wilfried, 80i:92003**
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Balduino, M. A. *See* **Rocha, A. F.; et al., (80j:68048)**
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Cronin-Scanlon, Jane Some qualitative analysis of singularly perturbed equations. **(80g:34050)**
Eisenfeld, Jerome *See* **Sandberg, S.; et al., (80g:93012)**
Engen, Steinar ★Stochastic abundance models. **(80b:62114)**
Fife, Paul C. Results and open questions in the asymptotic theory of reaction-diffusion equations. **(80a:35014)**
Françoso, E. *See* **Rocha, A. F.; et al., (80j:68048)**
Garg, Asha *See* **Sharma, Bhu Dev, (80g:94051)**
Gates, D. J. (*with* Westcott, Mark) Zone of influence models for competition in plantations. **(80a:60134a)**
(*with* Westcott, Mark) Spatial competition in plantations. **(80a:60134b)**

Hadeler, K. P. (*with* Rothe, Franz; Vogt, H.) Stationary solutions of reaction-diffusion equations. **(80i:35091)**
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Hofstadter, Douglas R. ★Gödel, Escher, Bach: an eternal golden braid. **(80j:03009)**
Jumarie, Guy The concept of structural entropy and its applications to general systems. **(80c:93008)**
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Schonbek, Maria Elena Boundary value problems for the Fitzhugh-Nagumo equations. **(80h:35078)**
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Vogt, H. *See* **Hadeler, K. P.; et al., (80i:35091)**
Westcott, Mark *See* **Gates, D. J., (80a:60134a)** *and* **Gates, D. J., (80a:60134b)**
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92A07 Medical applications of biology

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Herrmann, Hartmut Ein pharmakologischer Prozess und seine stochastische Beschreibung. (English summary) **80h:92005**
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92A09 Physiology, biochemistry [See also 76–XX, in particular 76Z10, and 80A30.]

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Klotz, A. H. *See* **Darvey, I. G.; et al., 80c:92008**
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Novák, M. The analogy between the nervous system of primitive living bodies and the frequency selective structures. (Russian summary) **80g:92011**
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Mathematical biology *See* **Studies in mathematical biology, 80m:92005**
Paris *See* **Biomathematics and cell kinetics, 80f:92009**
Studies in mathematical biology ★Studies in mathematical biology. Part I. **80m:92005**
Workshop:
Biomathematics and cell kinetics *See* **Biomathematics and cell kinetics, 80f:92009**

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Chen, Yi Der *See* **Hill, Terrell L., (80e:80008)**
Field, Richard J. (*with* Troy, William C.) The existence of solitary traveling wave solutions of a model of the Belousov-Zhabotinskiĭ reaction. **(80k:35044)**
Hearon, John Z. A monotonicity theorem for compartmental systems. **(80k:92016)**
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Pierce, J. G. (*with* Schumitzky, Alan) Optimal impulsive control of compartment models. II. Algorithm. **(80g:90120)**
Ponzo, Peter J. (*with* Wax, Nelson) Note on a model of a biochemical reaction. **(80b:80012)**
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Sumin, V. I. *See* **Morozov, S. F., (80i:35163)**
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Troy, William C. *See* **Field, Richard J., (80k:35044)**
Twersky, Victor Multiple scattering of waves by periodic and by random distributions. **(80j:78007)**
Wax, Nelson *See* **Ponzo, Peter J., (80b:80012)**

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Akin, Ethan ★The geometry of population genetics. **80m:92007**
Banks, H. T. (*with* Mahaffy, J. M.) Stability of cyclic gene models for systems involving repression. **80a:92033**
Barakat, Richard (*with* Wagener, Diane) Solutions of the forward diallelic diffusion equation in population genetics. **80a:92034**
Boyle, C. R. (*with* Elston, R. C.) Multifactorial genetic models for quantitative traits in humans. **80b:92013**
Bulmer, M. G. The sib competition model for the maintenance of sex and recombination. **80m:92008**
Burrows, Peter M. *See* **Cockerham, C. Clark, 80k:92004**
Carmelli, Dorit *See* **Karlin, Samuel, 80a:92037** *and* **Karlin, Samuel; et al., 80g:92014**
Chevalet, Claude (*with* Gillois, Michel; Micali, Artibano) On a dynamical system relevant in genetics. **80e:92016**
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Constantino, R. F. *See* **Ginzburg, L. R., 80e:92017**
Coutsias, Evangelos *See* **Cohen, Donald S.; et al., 80c:92015**
Elston, R. C. *See* **Boyle, C. R., 80b:92013**
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Ginzburg, L. R. (*with* Constantino, R. F.) On the rate of genetic adaptation under natural selection. **80e:92017**
Gladstien, K. (*with* Lange, Kenneth) Number of people and number of generations affected by a single deleterious mutation. **80a:92035**
(*with* Lange, Kenneth) Equilibrium distributions for deleterious genes in large stationary populations. **80c:92018**
Gnot, Stanisław (*with* Matej, Henryk; Szulga, Teofil) An accurate test for testing the Hardy-Weinberg equilibrium hypothesis. (Polish) **80j:92005**
Good, A. J. *See* **Littler, R. A., 80c:92019**
Gregorius, Hans-Rolf The effect of genetic incompatibility of demes on total population development. **80g:92012**
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Harrison, L. G. *See* **Lacalli, T. C., 80b:92017**
Heuch, Ivar Genetic algebras considered as elements in a vector space. **80a:92036**
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Hoppensteadt, F. C. Slow selection analysis of genetic traits in synchronized populations. **80b:92015**
Karlin, Samuel (*with* Carmelli, Dorit) Evolutionary aspects and sensitivity studies of some major gene models. **80a:92037**
(*with* Liberman, Uri) A natural class of multilocus recombination processes and related measures of crossover interference. **80d:92016**
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Smiga, Teofil *See* Gnot, Stanisław; et al., **80j:92005**

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Zeigler, Bernard P. On necessary and sufficient conditions for group selection efficacy. **(80g:92034)**

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Abakuks, Andris An optimal hunting policy for a stochastic logistic model. **80c:92022**

Adachi, Noriliko *See* Takeuchi, Yasuhiro; et al., **80i:92019**

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Coursol, J. *See* Dreux, Ph., **80d:92024**

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Curnow, R. N. Selection within self-fertilizing populations. **80b:92025**

Cushing, J. M. Stability and instability in predator-prey models with growth rate response delays. **80g:92017**

Dasgupta, Brahmananda *See* Goswami, Dilip; et al., **80f:92015**

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Evans, F. J. *See* Assimacopoulos, D., **80h:92009**

Falk, H. (*with* Ventevogel, W. J.) Random mapping based on a genetic model. **80b:92027**

Farkash, Shoshana *See* Karlin, Samuel, **80i:92015** *and* Karlin, Samuel, **80i:92016**

Feldman, Marcus W. *See* Uyenoyama, Marcy K., **80a:92057**

Fredrickson, A. G. *See* Stephanopoulos, Gregory; et al., **80g:92032**

Frisman, E. Ja. Some general conclusions on Fisher's fundamental theorem of natural selection. (German and Russian summaries) **80c:92029**

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Horwood, J. W. *See* **May, Robert M.; et al., 80a:92059**
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Kilmer, William (*with* Probert, Thomas) Depletion models for ecosystems with continuously delayed resource renewals. **80j:92013**
Lyons, N. I. (*with* Hutcheson, K.) A stopping rule based on Simpson's index of diversity. **80e:92041**
Marčuk, G. I. Problèmes liés à l'environnement: allocation optimale d'unités industrielles. **80e:92042**
On the problem of the preservation of the environment. (Russian) **80g:92037**
May, Robert M. (*with* Beddington, J. R.; Horwood, J. W.; Shepherd, J. G.) Exploiting natural populations in an uncertain world. **80a:92059**
Post, Wilfred M., III (*with* Travis, C. C.) Quantitative stability in models of ecological communities. **80g:92038**
Probert, Thomas *See* **Kilmer, William, 80j:92013**
Shepherd, J. G. *See* **May, Robert M.; et al., 80a:92059**
Thompson, J. M. T. An evolution game for a prey-predator ecology. **80h:92020**
Travis, C. C. *See* **Post, Wilfred M., III, 80g:92038**

Secondary classifications:

Britton, N. F. A mathematical model for carbon monoxide poisoning in man. **(80b:92006)**
Deshmukh, Sudhakar D. (*with* Pliska, Stanley R.) Optimal consumption and exploration of nonrenewable resources under uncertainty. **(80j:90053)**
Gates, D. J. (*with* O'Connor, A. J.; Westcott, Mark) Partitioning the union of disks in plant competition models. **(80i:52013)**
Kuppuswamy Rao, K. *See* **Sree Hari Rao, V., (80h:45015)**
Lewis, Tracy R. The exhaustion and depletion of natural resources. **(80j:90054)**
Mendelssohn, Roy Optimal harvesting strategies for stochastic single-species, multiage class models. **(80a:92052)**
O'Connor, A. J. *See* **Gates, D. J.; et al., (80i:52013)**
Patil, G. P. (*with* Rao, C. Radhakrishna) Weighted distributions and size-biased sampling with applications to wildlife populations and human families. (French summary) **(80e:62010)**
Pliska, Stanley R. *See* **Deshmukh, Sudhakar D., (80j:90053)**
Rao, C. Radhakrishna *See* **Patil, G. P., (80e:62010)**
Sree Hari Rao, V. (*with* Kuppuswamy Rao, K.) On a nonlinear differential-integral equation for ecological problems. **(80h:45015)**
Westcott, Mark *See* **Gates, D. J.; et al., (80i:52013)**

92A20 Sociology

Babics, László (*with* Dénes, Tamás) Graph theoretical tools for the study of the cumulative build-up of empirical sociology. (Hungarian. English and Russian summaries) **80m:92012**
Conlisk, John *See* **Sommers, Paul M., 80i:92024**
Dénes, Tamás *See* **Babics, László, 80m:92012**
Foster, Brian L. *See* **Seidman, Stephen B., 80c:92047** *and* **Seidman, Stephen B., 80j:92014**
Gould, S. H. Axiomatization of kinship theory. (Russian summary) **80c:92045**
Ivanilov, Ju. P. (*with* Stoljarova, E. M.) Some questions of demographic modeling. (Russian) **80i:92023**
Iwai, Sousuke (*with* Katai, Osamu) Graph-theoretic models of social group structures and indices of group structures. (Japanese) **80d:92038**
Katai, Osamu *See* **Iwai, Sousuke, 80d:92038**
Kemeny, John G. (*with* Snell, J. Laurie) ★Mathematical models in the social sciences. **80a:92060**
Kochen, Manfred *See* **de Sola Pool, Ithiel, 80d:92039**
Montroll, Elliott W. Social dynamics and the quantifying of social forces. **80c:92046**
Poston, Tim (*with* Stewart, Ian) Nonlinear modeling of multistable perception. **80b:92047**
Sahal, Devendra A theory of progress functions. **80e:92043**
Seidman, Stephen B. (*with* Foster, Brian L.) A graph-theoretic generalization of the clique concept. **80j:92014**
(*with* Foster, Brian L.) A note on the potential for genuine cross-fertilization between anthropology and mathematics. **80c:92047**
Snell, J. Laurie *See* **Kemeny, John G., 80a:92060**
de Sola Pool, Ithiel (*with* Kochen, Manfred) Contacts and influence. **80d:92039**
Sommers, Paul M. (*with* Conlisk, John) Eigenvalue immobility measures for Markov chains. **80i:92024**
Stewart, Ian *See* **Poston, Tim, 80b:92047**
Stoljarova, E. M. *See* **Ivanilov, Ju. P., 80i:92023**

Secondary classifications:

Balinski, M. L. (*with* Young, H. P.) The Webster method of apportionment. **(80j:90013)**
Barthélémy, Jean-Pierre Remarques sur les propriétés métriques des ensembles ordonnés. **(80d:06001)**
Cooter, Robert (*with* Kornhauser, Lewis; Lane, David) Liability rules, limited information, and the role of precedent. **(80c:90002)**
Coughlin, Peter Nonlinear optimization and equilibria in policy formation games with random voting. **(80j:90016)**
(Dubov, Ju. A.) *See* **Wilson, A. G., (80d:90030)**
(Imel'baev, Š. S.) *See* **Wilson, A. G., (80d:90030)**
Kornhauser, Lewis *See* **Cooter, Robert; et al., (80c:90002)**
Lane, David *See* **Cooter, Robert; et al., (80c:90002)**
Peleg, Bezalel A note on manipulability of large voting schemes. **(80k:90005)**
Petitot, J. Sur le modèle historique de Thom-Pomian. (English summary) **(80j:58015)**
(Popkov, Ju. S.) *See* **Wilson, A. G., (80d:90030)**
Schoen, Robert Calculating increment-decrement life tables by estimating mean durations at transfer from observed rates. **(80j:62095)**
Shenoy, Prakash P. On coalition formation in simple games: a mathematical analysis of Caplow's and Gamson's theories. **(80a:90170)**
(Šmul'jan, B. L.) *See* **Wilson, A. G., (80d:90030)**
Wilson, A. G. ★Энтропийные методы моделирования сложных систем. (Russian) [Entropy methods in modelling of complex systems] **(80d:90030)**
Wittman, Donald A diagrammatic exposition of justice. **(80j:90021)**
Wolfsy, Carla Reproductive success for social hymenoptera. **(80a:92058)**
Young, H. P. *See* **Balinski, M. L., (80j:90013)**
Žuravlev, Ju. I. Principles for the construction of proofs for algorithms for the solution of poorly formalized problems. (Russian) **(80g:68126)**

92A25 Psychology

Adams, Ernest W. (*with* Carlstrom, Ian F.) Representing approximate ordering and equivalence relations. **80j:92015**
Bartoszyński, Robert On linear classifications under varying choice probabilities. **80c:92048**
Beine, William B. *See* **Johnson, Charles R.; et al., 80i:92027**
Bird, Peter J. W. N. The impossibility of IQ. **80d:92040**
Carlstrom, Ian F. *See* **Adams, Ernest W., 80j:92015**
Chandon, J. L. (*with* Lemaire, J.; Pouget, J.) Dénombrement des quasi-ordres sur un ensemble fini. (English summary) **80g:92039**
Cowan, J. D. *See* **Ermentrout, G. B., 80g:92040**
Dyer, James S. (*with* Sarin, Rakesh K.) On the relationship between additive conjoint and difference measurement. **80a:92061**
Ermentrout, G. B. (*with* Cowan, J. D.) A mathematical theory of visual hallucination patterns. **80g:92040**
Falmagne, J. C. A representation theorem for finite random scale systems. **80e:92044a**
Errata: "A representation theorem for finite random scale systems" (J. Math. Psych. **18** (1978), no.1, 52–72). **80e:92044b**
On a class of probabilistic conjoint measurement models: some diagnostic properties. **80i:92025**
Flament, Claude Un modèle des jugements de similitude. (English summary) **80i:92026**
Gallistel, C. R. *See* **Norman, M. Frank, 80e:92047**
Holman, Eric W. Completely nonmetric multidimensional scaling. **80b:92048**
Indow, Tarow Alleys in visual space. **80e:92045**
Iwai, Sousuke *See* **Katai, Osamu, 80m:92013**
Johnson, Charles R. (*with* Beine, William B.; Wang, Theodore J.) Right-left asymmetry

in an eigenvector ranking procedure. **80i:92027**

Katai, Osamu (*with* Iwai, Sousuke) Construction of a conditional probability learning model and information theoretical evaluation of its efficiency. **80m:92013**

Lemaire, J. *See* **Chandon, J. L.; et al., 80g:92039**

Ninio, Jacques An algorithm that generates a large number of geometric visual illusions. **80e:92046**

Norman, M. Frank (*with* Gallistel, C. R.) What can one learn from a strength-duration experiment? **80e:92047**

Pouget, J. *See* **Chandon, J. L.; et al., 80g:92039**

Rockwell, Christina (*with* Yellott, John I., Jr.) A note on equivalent Thurstone models. **80i:92028**

Roseboom, William W. The logic of unboundedly reactive systems. **80g:92041**

Saaty, Thomas L. Erratum: "A scaling method for priorities in hierarchical structures" (J. Math. Psych. 15 (1977), no. 3, 234–281). **80b:92049**

Sarin, Rakesh K. *See* **Dyer, James S., 80a:92061**

Townsend, James T. A clarification of some current multiplicative confusion models. **80e:92048**

Wang, Theodore J. *See* **Johnson, Charles R.; et al., 80i:92027**

Yellott, John I., Jr. *See* **Rockwell, Christina, 80i:92028**

Secondary classifications:

Batchelder, William H. (*with* Bershad, Neil J.) The statistical analysis of a Thurstonian model for rating chess players. **(80b:62116)**

Bernroider, Gustav The foundation of computational geometry: theory and application of the point-lattice-concept within modern structure analysis. **(80b:68107)**

Bershad, Neil J. *See* **Batchelder, William H., (80b:62116)**

(Bogdan, Radu J.) *See* **Biography: Suppes, Patrick, (80m:01040)**

Flament, Claude Un théorème de point fixe dans les treillis. **(80i:06005)**

Kim, Ki Hang (*with* Roush, Fred W.) Ultrametrics and matrix theory. **(80a:15021)**

Roush, Fred W. *See* **Kim, Ki Hang, (80a:15021)**

Sampson, J. R. (*with* Trofanenko, S. C.) Aspects of shape. (French summary) **(80k:52003)**

Saunders, B. David (*with* Schneider, Hans) Cones, graphs and optimal scalings of matrices. **(80k:15036)**

Scheiblechner, Hartmann Specifically objective stochastic latency mechanisms. **(80c:62117)**

Schneider, Hans *See* **Saunders, B. David, (80k:15036)**

(Suppes, Patrick) *See* **Biography: Suppes, Patrick, (80m:01040)**

Takeuchi, Akihiro Evolutionary automata—comparison of automaton behavior and Restle's learning model. **(80k:68039)**

Trofanenko, S. C. *See* **Sampson, J. R., (80k:52003)**

Biography:

Suppes, Patrick ★Patrick Suppes. **(80m:01040)**

92A27 Psychophysics

Eisler, Hannes (*with* Holm, Sören; Montgomery, Henry) The general psychophysical differential equation: a comparison of three specifications. **80b:92022**

Holm, Sören *See* **Eisler, Hannes; et al., 80b:92022**

Iverson, Geoffrey J. Conditions under which Thurstone case III representations for binary choice probabilities are also Fechnerian. **80k:92014**

Montgomery, Henry *See* **Eisler, Hannes; et al., 80b:92022**

Weber, Siegfried Mathematical foundations of measurement in empirical sciences. (Spanish) **80k:92015**

Secondary classifications:

Cowan, J. D. *See* **Ermentrout, G. B., (80g:92040)**

Cyranski, John F. Measurement theory for physics. **(80k:81005)**

Ermentrout, G. B. (*with* Cowan, J. D.) A mathematical theory of visual hallucination patterns. **(80g:92040)**

Nicolis, John S. (*with* Protonotarios, Emmanuel N.) Modelling communication and control between hierarchical systems. **(80k:93010)**

Protonotarios, Emmanuel N. *See* **Nicolis, John S., (80k:93010)**

92A40 Chemistry [See also 80A30, 92A05, 92A09.]

Auchmuty, J. F. G. Qualitative effects of diffusion in chemical systems. **80b:92050**

Balasubramanian, K. Enumeration of stable stereo and position isomers of polysubstituted alcohols. **80m:92014**

Berman, Simeon M. (*with* Stewart, Alan L.) The mathematical theory of lateral impedance of visual activity and an application of Markov processes. **80b:92051**

DeLisi, Charles *See* **Perelson, Alan S., 80k:92017**

Gutman, Ivan On polymethine graphs. **80b:92023**

Haag, G. (*with* Hänggi, Peter) Exact solutions of discrete master equations in terms of continued fractions. **80j:92016**

Hänggi, Peter *See* **Haag, G., 80j:92016**

Hearon, John Z. A monotonicity theorem for compartmental systems. **80k:92016**

Perelson, Alan S. (*with* DeLisi, Charles) Receptor clustering on a cell surface. I. Theory of receptor cross-linking by ligands bearing two chemically identical functional groups. **80k:92017**

(Plath, P. J.) *See* **Proceedings: Bremer Konferenz zur Chemie, 80k:92018a** *and* **Proceedings: Bremer Konferenz zur Chemie, 80k:92018b**

Stewart, Alan L. *See* **Berman, Simeon M., 80b:92051**

van der Werff, Terry J. (*with* Wilhelm, Horst E.) Steady state bifurcation analysis of reaction-diffusion equations—a critique. **80b:92052**

Wilhelm, Horst E. *See* **van der Werff, Terry J., 80b:92052**

Wilson, Robin J. Graph theory and chemistry. **80d:92041**

Bremen *See* **Proceedings: Bremer Konferenz zur Chemie, 80k:92018a** *and* **Proceedings: Bremer Konferenz zur Chemie, 80k:92018b**

Konferenz:

Bremer, Chemie *See* **Proceedings: Bremer Konferenz zur Chemie, 80k:92018a** *and* **Proceedings: Bremer Konferenz zur Chemie, 80k:92018b**

Proceedings:

Bremer Konferenz zur Chemie ★Proceedings of Bremer Konferenz zur Chemie. Part I. **80k:92018a**

★Proceedings of Bremer Konferenz zur Chemie. Part II. **80k:92018b**

Secondary classifications:

Aronson, D. G. A comparison method for stability analysis of nonlinear parabolic problems. **(80c:35014)**

Chevalet, Claude (*with* Gillois, Michel; Micali, Artibano) On a dynamical system relevant in genetics. **(80e:92016)**

Cohen, Donald S. (*with* Neu, John C.; Rosales, Rodolfo R.) Rotating spiral wave solutions of reaction-diffusion equations. **(80a:80008)**

Cvetković, Dragoš M. Some topics from the theory of graph spectra. **(80m:05082)**

Davydov, A. S. Solitons in molecular systems. **(80j:81090)**

Ebeling, W. *See* **Feistel, R., (80c:82005)**

Erle, Dieter (*with* Mayer, Karl Heinz; Plesser, Theodor) The existence of stable limit cycles for enzyme catalyzed reactions with positive feedback. **(80k:92002)**

Feistel, R. (*with* Ebeling, W.) Stochastic investigations of a limit cycle system: generalized Lotka-Selkov reaction. **(80c:82005)**

Field, Richard J. (*with* Troy, William C.) The existence of solitary traveling wave solutions of a model of the Belousov-Zhabotinskiĭ reaction. **(80k:35044)**

Gillois, Michel *See* **Chevalet, Claude; et al., (80e:92016)**

Lefever, René Stabilité globale et mécanismes de fluctuations des structures dissipatives. (English summary) **(80a:80009)**

Mayer, Karl Heinz *See* **Erle, Dieter; et al., (80k:92002)**

Micali, Artibano *See* **Chevalet, Claude; et al., (80e:92016)**

Neu, John C. *See* **Cohen, Donald S.; et al., (80a:80008)**

Plesser, Theodor *See* **Erle, Dieter; et al., (80k:92002)**

Rosales, Rodolfo R. *See* **Cohen, Donald S.; et al., (80a:80008)**

Troy, William C. *See* **Field, Richard J., (80k:35044)**

92A90 Other applications

Amos, D. Bernard *See* **Nau, Dana S.; et al., 80a:92063**

Andrietti, Francesco Interactions among biological systems: an analysis of asymptotic stability. **80a:92062**

Markowsky, George *See* **Nau, Dana S.; et al., 80a:92063**

Meerkov, Semyon M. Mathematical theory of behavior—individual and collective behavior of retardable elements. **80c:92049**

Nau, Dana S. (*with* Markowsky, George; Woodbury, Max A.; Amos, D. Bernard) A mathematical analysis of human leukocyte antigen serology. **80a:92063**

Teodorescu, Dan Cybernetical actions and Markov processes. **80c:92050**

Woodbury, Max A. *See* **Nau, Dana S.; et al., 80a:92063**

Secondary classifications:

Day, William H. E. Classification and specification of flat cluster methods. **(80j:62056)**

93–XX SYSTEMS THEORY; CONTROL (For optimal control, see 49–XX.)

93–01 Elementary exposition, textbooks

Anhimjuk, V. L. ★Теория автоматического управления. (Russian) [Automatic control theory] **80h:93001**

Clique, Marc *See* **Gille, Jean-Charles, 80d:93003a** *and* **Gille, Jean-Charles, 80d:93003b**

Craven, Bruce Desmond ★Mathematical programming and control theory. **80d:93001**

(Dörrscheidt, Frank) *See* **Föllinger, Otto, 80f:93001**

Eliseev, S. V. ★Структурная теория виброзащитных систем. (Russian) [The structural theory of vibration-free systems] **80d:93002**

Föllinger, Otto ★Regelungstechnik. **80f:93001**

Gille, Jean-Charles (*with* Clique, Marc) ★La représentation d'état pour l'étude des systèmes dynamiques. Tome I. **80d:93003a**

(*with* Clique, Marc) ★La représentation d'état pour l'étude des systèmes dynamiques. Tome II. **80d:93003b**

Göldner, K. (*with* Kubik, S.) ★Nichtlineare Systeme der Regelungstechnik. **80a:93001**

(Klittich, Manfred) *See* **Föllinger, Otto, 80f:93001**

Krabs, Werner ★Einführung in die Kontrolltheorie. **80a:93002**

Kubik, S. *See* **Göldner, K., 80a:93001**

Owens, D. H. ★Feedback and multivariable systems. **80k:93001**

(Pančenkov, A. M.) *See* **Eliseev, S. V., 80d:93002**

Schwarz, Helmut ★Zeitdiskrete Regelungssyteme. **80e:93001**

Secondary classifications:

Kapur, J. N. Optimization in mathematics, statistics, economics, operations research, science and technology. **(80h:00003)**

93–02 Advanced exposition (research surveys, monographs, etc.)

(Blomberg, Hans) *See* **Topics in systems theory, 80j:93005**

Boltjanskiĭ, V. G. ★Optimal control of discrete systems. **80f:93002**

(Butrim, M. G.) *See* **Fleming, U.; et al., 80a:93003**

Carenko, T. I. *See* **Ermol'ev, Ju. M.; et al., 80c:93001**

Curtain, Ruth F. (*with* Pritchard, Anthony J.) ★Infinite dimensional linear systems theory. **80h:93002**

Dorohov, I. N. *See* **Kafarov, V. V., 80j:93002**
(Emel'janov, S. V.) *See* **Mesarović, M. D.; et al., 80a:93004**
Ermol'ev, Ju. M. (*with* Gulenko, V. P.; Carenko, T. I.) ★Конечно-разностный метод в задачах оптимального управления. (Russian) [The finite-difference method in optimal control problems] **80c:93001**
Evlanov, L. G. ★Контроль динамических систем. (Russian) [Monitoring of dynamical systems] **80m:93001**
Fleming, U. (*with* Rishel, R. W.) ★Оптимальное управление детерминированными и стохастическими системами. (Russian) [Deterministic and stochastic optimal control] **80a:93003**
Gabasov, R. F. (*with* Kirillova, F. M.) Mathematical theory of optimal control. (Russian) **80d:93004**
Gol'denblat, I. I. *See* **Petrov, B. N.; et al., 80f:93003**
Gulenko, V. P. *See* **Ermol'ev, Ju. M.; et al., 80c:93001**
(Halme, Aarne) *See* **Topics in systems theory, 80j:93005**
(Hämäläinen, Raimo P.) *See* **Topics in systems theory, 80j:93005**
(Hardin, Ron) *See* **Boltjanskiĭ, V. G., 80f:93002**
Ionescu, Vlad ★Sinteza structurală a sistemelor liniare. (Romanian) [Structural synthesis of linear systems] **80j:93001**
Iri, Masao *See* **Onaga, Kenji, 80g:93001**
Jamievskiĭ, R. T. ★Управление объектами с запаздыванием. (Russian) [Control of objects with lag] **80d:93005**
Kafarov, V. V. (*with* Dorohov, I. N.) ★Системный анализ процессов химической технологии. (Russian) [Systems analysis of processes of chemical technology] **80j:93002**
(Katyšev, P. K.) *See* **Fleming, U.; et al., 80a:93003**
Kirillova, F. M. *See* **Gabasov, R. F., 80d:93004**
(Krenkel', T. È.) *See* **Wunsch, Gerhard, 80c:93002**
(Leondes, Cornelius T.) *See* **Control and dynamic systems: advances in theory and application, 80j:93003**
Mesarović, M. D. (*with* Takahara, Yasuhiko) ★Общая теория систем: математические основы. (Russian) [General systems theory: mathematical foundations] **80a:93004**
(Nappel'baum, È. L.) *See* **Mesarović, M. D.; et al., 80a:93004**
Neĭmark, Ju. I. ★Динамические системы и управляемые процессы. (Russian) [Dynamical systems and control processes] **80d:93006**
Onaga, Kenji (*with* Iri, Masao) Combinatorial approaches to modeling and systems analysis. (Japanese) **80g:93001**
Petrov, B. N. (*with* Ulanov, G. M.; Gol'denblat, I. I.; Ul'janov, S. V.) ★Теория моделей в процессах управления. (Russian) [The theory of models in control processes] **80f:93003**
(Petrova, Irina) *See* **Zubov, V. I., 80a:93005**
Popov, E. P. ★Теория линейных систем автоматического регулирования и управления. (Russian) [Theory of linear automatic regulation and control systems] **80e:93002**
Pritchard, Anthony J. *See* **Curtain, Ruth F., 80b:93002**
Rishel, R. W. *See* **Fleming, U., 80a:93003**
(Ristaniemi, Olli) *See* **Topics in systems theory, 80j:93005**
Russell, David L. ★Mathematics of finite-dimensional control systems. **80d:93007**
(Širjaev, A. N.) *See* **Fleming, U.; et al., 80a:93003**
Takahara, Yasuhiko *See* **Mesarović, M. D., 80a:93004**
Ulanov, G. M. *See* **Petrov, B. N.; et al., 80f:93003**
Ul'janov, S. V. *See* **Petrov, B. N.; et al., 80f:93003**
Wunsch, Gerhard ★Теория систем. (Russian) [Systems theory] **80c:93002**
Zubov, V. I. ★Théorie de la commande. **80a:93005**
Birthday:
Blomberg, Hans *See* **Topics in systems theory, 80j:93005**
Control and dynamic systems: advances in theory and application ★Control and dynamic systems: advances in theory and application. Vol. 15. **80j:93003**
Control systems *See* **Software for control systems, 80k:93002**
Distributed process control system *See* **Special issue: Distributed process control system, 80j:93004**
Dynamic systems *See* **Control and dynamic systems: advances in theory and application, 80j:93003**
Software for control systems ★Математическое обеспечение систем управления. (Russian) [Software for control systems] **80k:93002**
Special issue:
Distributed process control system ★Special issue on distributed process control system. (Japanese) **80j:93004**
Systems theory *See* **Topics in systems theory, 80j:93005**
Topics in systems theory ★Topics in systems theory. **80j:93005**

Secondary classifications:

Agračev, A. A. (*with* Gamkrelidze, R. V.) Exponential representation of flows and a chronological enumeration. (Russian) **(80g:49036)**
Gamkrelidze, R. V. *See* **Agračev, A. A., (80g:49036)**

93–03 Historical (must also be assigned at least one classification number from Section 01)

MacFarlane, Alistair G. J. The development of frequency-response methods in automatic control. **80b:93001**

93–04 Explicit machine computation and programs (not the theory of computation or programming)

93–06 Proceedings, conferences, etc.

(Allahverdiev, Dž. È.) *See* **Questions of mathematical cybernetics and applied mathematics, 80g:93002**
(Arkin, V. I.) *See* **Probability processes and control, 80d:93012**
(Banks, S. P.) *See* **Control of distributed parameter systems, 80c:93003**
Benkö, Iosif *See* **Systems theory, 80m:93002**
(Cichocki, K.) *See* **Systems analysis applications to complex programs, 80j:93008**
(Cypkin, Ja. Z.) *See* **Modeling and control in evolving systems, 80d:93011**
(Golembo, Z. B.) *See* **Engineering cybernetics, 80d:93009**
(Gregson, M. J.) *See* **Recent theoretical developments in control, 80c:93004**
(Malița, Mircea) *See* **Systems in the natural sciences, 80g:93003**
(Marčuk, G. I.) *See* **Modelling and optimization of complex systems, 80j:93006**
(Muszyńska, Agnieszka) *See* **Stability and sensitivity in mechanical systems, 80e:93004**
(Novožilov, V. V.) *See* **Control of dynamical systems, 80d:93008**
(Petrov, B. N.) *See* **Engineering cybernetics, 80d:93009**
(Pritchard, Anthony J.) *See* **Control of distributed parameter systems, 80c:93003**
(Raibman, N. S.) *See* **Identification and system parameter estimation, 80d:93010a; Identification and system parameter estimation, 80d:93010b** *and* **Identification and system parameter estimation, 80d:93010c**
(Simionescu, Claudia Lidia) *See* **Systems theory, 80m:93002**
(Straszak, A.) *See* **Systems analysis applications to complex programs, 80j:93008**
(Žožikašvili, V. A.) *See* **Information processes in complex systems, 80e:93003**
Applied mathematics *See* **Questions of mathematical cybernetics and applied mathematics, 80g:93002**
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Young Scientists of the Institute of Cybernetics *See* **Proceedings: Conference of Young Scientists of the Institute of Cybernetics, 80f:93004**
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Control of distributed parameter systems ★Control of distributed parameter systems. **80c:93003**
Control of dynamical systems ★Управление динамическими системами. (Russian) [Control of dynamical systems] **80d:93008**
Coventry *See* **Control of distributed parameter systems, 80c:93003**
Cybernetics *See* **Proceedings: Conference of Young Scientists of the Institute of Cybernetics, 80f:93004** *and* **Questions of mathematical cybernetics and applied mathematics, 80g:93002**
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Engineering cybernetics ★Техническая кибернетика. Том 10. (Russian) [Engineering cybernetics. Vol. 10] **80d:93009**
Evolving systems *See* **Modeling and control in evolving systems, 80d:93011**
Identification and system parameter estimation ★Identification and system parameter estimation. Part 1. **80d:93010a**
★Identification and system parameter estimation. Part 2. **80d:93010b**
★Identification and system parameter estimation. Part 3. **80d:93010c**
IFAC Symposium:
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Identification and System Parameter Estimation *See* **Identification and system parameter estimation, 80d:93010a; Identification and system parameter estimation, 80d:93010b** *and* **Identification and system parameter estimation, 80d:93010c**
IFIP Conference:
Modelling and Optimization of Complex Systems *See* **Modelling and optimization of complex systems, 80j:93006**
Information processes in complex systems ★Информационные процессы в сложных системах. (Russian) [Information processes in complex systems] **80e:93003**
Itogi Nauki i Tehniki *See* **Engineering cybernetics, 80d:93009**
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Mechanical systems *See* **Stability and sensitivity in mechanical systems, 80e:93004**
Modeling and control in evolving systems ★Моделирование и управление в развивающихся системах. (Russian) [Modeling and control in evolving systems] **80d:93011**
Modelling and optimization of complex systems ★Modelling and optimization of complex systems. **80j:93006**
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Novosibirsk *See* **Modelling and optimization of complex systems, 80j:93006**
Optimization of complex systems *See* **Modelling and optimization of complex systems, 80j:93006**
Probability processes and control ★Вероятностные процессы и управление. (Russian) [Probability processes and control] **80d:93012**
Proceedings:
Annual Southeastern Symposium on System Theory ★Proceedings of the Eleventh Annual Southeastern Symposium on System Theory. **80j:93007**
Conference of Young Scientists of the Institute of Cybernetics ★Proceedings of the Conference of Young Scientists of the Institute of Cybernetics, Academy of Sciences of the Ukrainian SSR, dedicated to 18th Congress of the Young Communist League. **80f:93004**
Questions of mathematical cybernetics and applied mathematics ★Вопросы

математической кибернетики и прикладной математики. Вып. 3. (Russian) [Questions of mathematical cybernetics and applied mathematics. No. 3] **80g:93002**
Recent theoretical developments in control ★Recent theoretical developments in control. **80c:93004**
Stability and sensitivity in mechanical systems ★Stateczność i wrażliwość w układach mechanicznych. (Polish) [Stability and sensitivity in mechanical systems] **80e:93004**
Symposium:
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Systems analysis applications to complex programs ★Systems analysis applications to complex programs. **80j:93008**
Systems in the natural sciences ★Sisteme în ştiinţele naturii. (Romanian) [Systems in the natural sciences] **80g:93003**
Systems theory ★Teoria sistemelor. (Romanian) [Systems theory] **80m:93002**
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Tbilisi *See* **Identification and system parameter estimation, 80d:93010a; Identification and system parameter estimation, 80d:93010b** *and* **Identification and system parameter estimation, 80d:93010c**
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Secondary classifications:

(Aliferov, V. V.) *See* **Mathematical methods of control of systems with distributed parameters, (80d:93041)**
(Bensoussan, Alain) *See* **Symposium: Systems Optimization and Analysis, (80m:49002)**
(Dubuisson, B.) *See* **Information and systems, (80a:94001)**
(Hanika, F. de P.) *See* **Progress in cybernetics and systems research, (80c:68005)**
(Kohlmann, Michael) *See* **Stochastic control theory and stochastic differential systems, (80f:60004)**
(Kuhtenko, O. I.) *See* **Complex control systems, (80d:93034)**
(Lebedev, D. V.) *See* **Complex control systems, (80d:93034)**
(Lemaréchal, Claude) *See* **Nonsmooth optimization, (80d:49002)**
(Lions, Jacques-Louis) *See* **Numerical methods in mathematical physics, geophysics and optimal control, (80e:65006)** *and* **Symposium: Systems Optimization and Analysis, (80m:49002)**
(Liu, Pan Tai) *See* **Differential games and control theory, (80f:90006a)** *and* **Control theory in mathematical economics, (80f:90006b)**
(Marčuk, G. I.) *See* **Numerical methods in mathematical physics, geophysics and optimal control, (80e:65006)**
(Mifflin, Robert) *See* **Nonsmooth optimization, (80d:49002)**
(Pančenkov, A. M.) *See* **Asymptotic methods in systems theory, (80f:00002)**
(Pichler, Franz R.) *See* **Progress in cybernetics and systems research, (80c:68005)**
(Rose, J.) *See* **Current topics in cybernetics and systems, (80a:68001)**
(Roxin, Emilio O.) *See* **Differential games and control theory, (80f:90006a)**
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(Trappl, Robert) *See* **Progress in cybernetics and systems research, (80c:68005)**
(Vogel, Walter) *See* **Stochastic control theory and stochastic differential systems, (80f:60004)**
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Asymptotic methods in systems theory ★Асимптотические методы в теории систем. (Russian) [Asymptotic methods in systems theory] **(80f:00002)**
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Compiègne *See* **Information and systems, (80a:94001)**
Complex control systems ★Сложные системы управления. (Russian) [Complex control systems] **(80d:93034)**
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Congress:
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Control systems *See* **Complex control systems, (80d:93034)** *and* **Mathematical methods of control of systems with distributed parameters, (80d:93041)**
Control theory *See* **Differential games and control theory, (80f:90006a)**
Control theory in mathematical economics ★Control theory in mathematical economics. **(80f:90006b)**
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Cybernetics *See* **Progress in cybernetics and systems research, (80c:68005)**
Cybernetics and systems *See* **Current topics in cybernetics and systems, (80a:68001)**
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Information and systems ★Information and systems. **(80a:94001)**
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Mathematical economics *See* **Control theory in mathematical economics, (80f:90006b)**
Mathematical methods of control of systems with distributed parameters ★Математические методы управления системами с распределенными параметрами. (Russian) [Mathematical methods of control of systems with distributed parameters] **(80d:93041)**
Mathematical physics *See* **Numerical methods in mathematical physics, geophysics and optimal control, (80e:65006)**
Nonsmooth optimization ★Nonsmooth optimization. **(80d:49002)**
Novosibirsk *See* **Numerical methods in mathematical physics, geophysics and optimal control, (80e:65006)**
Numerical methods in mathematical physics, geophysics and optimal control ★Вычислительные методы в математической физике, геофизике и оптимальном управлении. (Russian) [Numerical methods in mathematical physics, geophysics and optimal control] **(80e:65006)**
Optimal control *See* **Numerical methods in mathematical physics, geophysics and optimal control, (80e:65006)**
Progress in cybernetics and systems research ★Progress in cybernetics and systems research. Vol. V. **(80c:68005)**
Rocquencourt *See* **Symposium: Systems Optimization and Analysis, (80m:49002)**
Stochastic control theory and stochastic differential systems ★Stochastic control theory and stochastic differential systems. **(80f:60004)**
Stochastic differential systems *See* **Stochastic control theory and stochastic differential systems, (80f:60004)**
Symposium:
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Systems optimization *See* **Symposium: Systems Optimization and Analysis, (80m:49002)**
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93Axx General

93A05 Axiomatic system theory

Bek, Roman (*with* Růžička, Milan) On modelling of large variable systems of higher degree by means of language systems. **80m:93003**
Buchacz, Andrzej *See* **Wojnarowski, Józef, 80c:93007**
Fuhrmann, Paul A. Simulation of linear systems and factorization of matrix polynomials. **80b:93002**
Goguen, Joseph A. *See* **Varela Garcia, Francisco Javier, 80c:93006**
Haimes, Yacov Y. *See* **Macko, Donald, 80b:93003**
Jaroń, Jerzy Goals of a system, their spaces and realization. (Polish. English and Russian summaries) **80a:93006**
Karapenev, Hristo K. Reliability of a system with time excessiveness. (Russian. Bulgarian and English summaries) **80a:93007**
Kokar, Mieczysław Similarity in dimensional systems. (Russian summary) **80a:93008**
Liepa, Peter E. (*with* Wonham, W. M.) Feedback systems in a general algebraic setting. **80a:93009**
Locke, M. Zur Homomorphie abstrakter Systeme. **80a:93010**
Macko, Donald (*with* Haimes, Yacov Y.) Overlapping coordination of hierarchical structures. **80b:93003**
Rosen, Robert ★Fundamentals of measurement and representation of natural systems. **80c:93005**
Růžička, Milan *See* **Bek, Roman, 80m:93003**
Varela Garcia, Francisco Javier (*with* Goguen, Joseph A.) The arithmetic of closure. **80c:93006**
Wojnarowski, Józef (*with* Buchacz, Andrzej) Application of oriented space techniques in the analysis of discrete nonlinear mechanical systems. (Russian) **80c:93007**
Wonham, W. M. *See* **Liepa, Peter E., 80a:93009**

Secondary classifications:

Arbib, Michael A. (*with* Manes, Ernest G.) Intertwined recursion, tree transformations, and linear systems. **(80e:18001)**
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93A10 General systems

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Aizerman, M. A. (*with* Pjatnickiĭ, E. S.) Foundations of the theory of discontinuous systems. (Russian) **80e:93005**
Beneš, Jiří ★Teoria systemów. (Polish) [Systems theory] **80k:93003**
Bielecki, Marek A hybrid implementation of the no-rebounding, time optimal control for an electromagnetic actuator. **80e:93006**
Bistritz, Y. (*with* Langholz, G.) Model reduction by best Chebyshev rational approximations in the complex plane. **80g:93004**
Boehme, B. (*with* Sofieva, Ju. N.; Cirlin, A. M.) Steady-state characteristic of certain types of dynamic plants. **80d:93013**
Borzenko, I. M. On defining the concept of reducible control systems. **80k:93004**
Bosgra, O. H. *See* **van der Weiden, A. J. J., 80f:93013**
Burkov, V. N. (*with* Kondrat'ev, V. V.) Two-level active systems. III. Equilibria in above-board control laws. **80f:93005**
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Descusse, J. Triangular decoupling of linear multivariable systems by output feedback. **80b:93003**

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Ferreira, Pedro *See* Wolovich, W. A., **80e:93011**
Goguen, Joseph A. (*with* Varela Garcia, Francisco Javier) Systems and distinctions; duality and complementarity. **80c:93008**
Gol'denblat, I. I. *See* Petrov, B. N.; et al., **80e:93010**
Gopal, Krishna (*with* Aggarwal, K. K.; Gupta, J. S.) An event expansion algorithm for reliability evaluation in complex systems. **80b:93004**
Green, Michael D. A digital transfer matrix approach to distributed system simulation. **80c:93007**
Gupta, J. S. *See* Gopal, Krishna; et al., **80b:93004**
Herkenrath, Ulrich (*with* Theodorescu, Radu) General control systems. **80h:93004**
Ho, Y. C. (*with* Papadopoulos, N.) Further notes on redundancy in teams. **80c:93009**
Iazeolla, Giuseppe G. (*with* Martinelli, Enrico; Pranevičius, Henrikas) A method for the analytical representation of discrete event simulation models. (Russian and Latvian summaries) **80f:93007**
Ilié, E. Ein an der Automatentheorie orientierter abstrakter Systembegriff und seine Beziehungen zum "kausalen System" nach Windeknecht. **80f:93008**
Ikeshoji, Hideomi *See* Takahara, Yasuhiko, **80h:93007**
Janicke, O. Anwendung der Walsh-Transformation in zellularen Strukturen. **80a:93011**
Jumarie, Guy Relativity, information, catastrophe and subjectivity. A unified approach to general systems. **80k:93005**
The concept of structural entropy and its applications to general systems. **80c:93008**
Kafarov, V. V. (*with* Mešalkin, V. P.; Nguen Suan Nguen) Modeling of chemical engineering systems by the method of the compact transformation. (Russian) **80g:93005a**
(*with* Mešalkin, V. P.; Nguen Suan Nguen) An algorithm for modeling chemical engineering systems based on the method of the compact transformation. (Russian) **80g:93005b**
(*with* Mešalkin, V. P.; Nguen Suan Nguen) A method for reflecting free variables of chemical engineering systems based on the compact transformation of matrix informational structure. (Russian) **80g:93005c**
Kakičev, L. G. (*with* Solodovnikov, V. V.; Fedotov, A. I.) Current state of the theory and a method of mathematical description of a class of logical-dynamical systems. (Russian) **80m:93004**
(Kalisz, Marek) *See* Beneš, Jiří, **80k:93003**
Kindler, Evžen Dynamic systems and theory of simulation. **80k:93006**
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Kulik, L. A. Zur Analyse und Synthese zeitdiskreter superponierbarer zellularer Systeme. **80f:93009**
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Litvak, B. G. Metrized relations in expert estimates. **80g:93006**
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McDaniel, Willie L., Jr. *See* Mitchell, Jerrel R.; et al., **80h:93005**
Meerov, M. V. Optimization of multivariable dynamic systems. **80k:93007**
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Mitchell, Jerrel R. (*with* Nail, James B.; McDaniel, Willie L., Jr.) Computation of cofactors of $[sI - A]$ with applications. **80h:93005**
Muciek, Andrzej Algebraic model of dimensional analysis. (Russian summary) **80i:93001**
Mullis, C. T. (*with* Roberts, R. A.) On weak equivalence of linear systems and finite state systems. **80c:93010**
Muromtsev, Yu. L. Determination of bounds for reliability indices of complex systems. **80e:93009**
Nagy, Jozef (*with* Nováková, Eva) Local determinacy of symmetric pseudoprocesses. (Czech and Russian summaries) **80k:93008**
Nail, James B. *See* Mitchell, Jerrel R.; et al., **80h:93005**
Nguen Suan Nguen *See* Kafarov, V. V.; et al., **80g:93005a**; Kafarov, V. V.; et al., **80g:93005b** *and* Kafarov, V. V.; et al., **80g:93005c**
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Papadopoulos, N. *See* Ho, Y. C., **80c:93009**
(Paulin, Gerhard) *See* Warschawski, W. I., **80m:93005**
Petrov, B. N. (*with* Ulanov, G. M.; Gol'denblat, I. I.; Ul'janov, S. V.) Informational and thermodynamical aspects of the qualitative theory of evolutionary models of developing dynamical control systems. (Russian) **80e:93010**
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Pranevičius, Henrikas *See* Iazeolla, Giuseppe G.; et al., **80f:93007**
Pugh, A. C. (*with* Ratcliffe, P. A.) On the zeros and poles of a rational matrix. **80g:93007**
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Ratcliffe, P. A. *See* Pugh, A. C., **80g:93007**
Roberts, R. A. *See* Mullis, C. T., **80c:93010**
Root, William L. Consideration regarding input and output spaces for time-varying dynamical systems. **80a:93012**
Ruszczyński, Andrzej Coordination of nonstationary systems. **80f:93010**
Sinha, P. K. A new condition for output feedback decoupling of multivariable systems. **80c:93011**
Sofieva, Ju. N. *See* Boehme, B.; et al., **80d:93013**
Solodovnikov, V. V. *See* Kakičev, L. G.; et al., **80m:93004**
Sontag, Eduardo D. On finitary linear systems. **80j:93009**
Stoyle, P. N. R. (*with* Vardulakis, A. I. G.) On certain connections between the geometric and the polynomial matrix approaches to linear system theory. **80f:93011**
Takahara, Yasuhiko (*with* Ikeshoji, Hideomi) Characterization of the causality of general dynamic systems. **80h:93007**
Theodorescu, Radu *See* Herkenrath, Ulrich, **80h:93004**
Tomov, I. *See* Tošков, A., **80h:93008**
Tošков, A. (*with* Tomov, I.) Decoupling of linear multidimensional systems (autonomous control). (Bulgarian. Russian and English summaries) **80h:93008**
Tsoi, A. C. Recent advances in the algebraic system theory of delay-differential equations. **80f:93012**
Ulanov, G. M. *See* Petrov, B. N.; et al., **80e:93010**
Ul'janov, S. V. *See* Petrov, B. N.; et al., **80e:93010**
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Varela Garcia, Francisco Javier *See* Goguen, Joseph A., **80c:93008**
Warschawski, W. I. ★Kollektives Verhalten von Automaten. **80m:93005**
van der Weiden, A. J. J. (*with* Bosgra, O. H.) The determination of structural properties of a linear multivariable system by operations of system similarity. I. Strictly proper systems. **80f:93013**
Wolovich, W. A. Skew prime polynomial matrices. **80c:93012**
(*with* Ferreira, Pedro) Output regulation and tracking in linear multivariable systems. **80e:93011**
Wolski, Włodzimierz J. Circuit analysis of nonlinear systems using Volterra series. (Polish. English, French, German and Russian summaries) **80k:93009**
Wonham, W. M. Geometric state-space theory in linear multivariable control: a status report. **80i:93002**
Wunsch, Gerhard ★Zellulare Systeme. **80e:93012**
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Secondary classifications:

Aoki, Kyota (*with* Tanaka, Kokichi) Interactive systems and their abilities. **80j:68079**
Beneš, Karel On modelling dynamic systems excited by the Dirac function. (Czech and Russian summaries) **80k:70017**
Boretskiĭ, I. V. (*with* Pavlov, V. G.) Group-theoretic interpretation of certain properties of a linear dynamic system. **80f:93019**
Cavallo, Roger E. (*with* Klir, George J.) Reconstructability analysis of multidimensional relations: a theoretical basis for computer-aided determination of acceptable systems models. **80i:68080**
Dumitrescu, Camelia (*with* Vianu, Victor) The topological learning space. (Romanian. English summary) **80i:54060**
Granas, Andrzej (*with* Guenther, Ronald B.; Lee, John W.) Remarks on positive periodic solutions for second order differential equations. (Russian summary) **80c:34040**
Guenther, Ronald B. *See* Granas, Andrzej; et al., **80c:34040**
Gustomesov, V. A. Simple cycles in relay-sampled data systems. (Russian) **80c:34041**
Gutowski, Roman Mathematical models of dynamical processes, and the stability of motion. (Polish) **80d:93057**
Hackenbroch, Wolfgang On the Radon-Nikodým theorem for operator measures and its applications to prediction and linear systems theory. **80f:28008**
Hoffmann, R. Unzuverlässige binäre zellulare Systeme. **80g:68071**
Hughes, P. C. Modal identities for elastic bodies, with application to vehicle dynamics and control. **80m:73029**
Klir, George J. *See* Cavallo, Roger E., **80i:68080**
Laborczi, Z. A note on deadlocks. **80c:68017**
Lee, John W. *See* Granas, Andrzej; et al., **80c:34040**
Marangozova, P. C. A theorem for the separability of sets. (Bulgarian. Russian and English summaries) **80h:52006**
Marčuk, G. I. (*with* Penenko, V. V.) Application of optimization methods to the problem of mathematical simulation of atmospheric processes and environment. **80m:86005**
Matrosov, V. M. (*with* Vasil'ev, S. N.) A comparison principle for theorem deducing. II. **80j:68078**
Moiseenko, G. E. Optimal partitioning of a system into subsystems. **80k:49019**
Pavlov, V. G. *See* Boretskiĭ, I. V., **80f:93019**
Penenko, V. V. *See* Marčuk, G. I., **80m:86005**
Starobinec, S. M. A method of control of networks of channel switching in the presence of recurrent input flow. (Russian) **80f:94039**
Stavrinidis, C. P. A procedure for coupling dynamical equations. **80i:70019**
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93A13 Hierarchical systems

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Arbel, Ami (*with* Tse, Edison) Observer design for large-scale linear systems. **80d:93014**

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Singular perturbations, large-scale systems and asymptotic stability of invariant sets. **80j:93011**
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Hickin, J. (*with* Sinha, N. K.) Applications of projective reduction methods to estimation and control. **80k:93011**

Iwai, Z. (*with* Seborg, D. E.; Fisher, D. Grant; Kobayashi, N.) Decoupling of linear time-varying systems with time delays in the control variables or state variables. **80a:93014**

Kempner, L. M. *See* Berezovskiĭ, B. A., **80i:93004**

Kobayashi, N. *See* Iwai, Z.; et al., **80a:93014**

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Laub, Alan J. (*with* Bailey, F. N.) An iterative coordination approach to decentralized decision problems. **80e:93018**

Le Guyader, Hervé *See* Vallet, Claude; et al., **80j:93015**

Liu, Pan Tai Asymptotically decoupled systems. **80c:93016**

Maeda, Hajime Systems structure and low-dimensional models of large-scale linear systems. (Japanese) **80a:93015**
(*with* Kodama, Shinzo) Some results on nonlinear compartmental systems. **80b:93008**

Michel, Anthony N. (*with* Miller, Richard K.; Tang, Wang) Lyapunov stability of interconnected systems: decomposition into strongly connected subsystems. **80b:93009**

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Özgüner, Ümit (*with* Perkins, W. R.) Optimal control of multilevel large-scale systems. **80h:93011**
Near-optimal control of composite systems: the multi time-scale approach. **80j:93012**

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Salehi, S. V. On finding the transmittance between any two points in a composite system. **80j:93013**

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Sandberg, Irwin W. A note on the properties of compartmental systems. **80b:93012**

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Seborg, D. E. *See* Iwai, Z.; et al., **80a:93014**

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Spal, Jindřich Generalization of the method of *D*-decomposition. **80m:93008**

Stoyle, P. N. R. (*with* Vardulakis, A. I. G.) The mechanism of decoupling. **80h:93011**

Suda, Nobuhide Interconnection of systems. (Japanese) **80f:93015**

Sundareshan, Malur K. Decentral and multilevel controllability of large-scale systems. **80f:93016**

Tabak, Daniel *See* Brady, H. Nelson; et al., **80m:93007**

Taï, M. L. Stochastic model of self-assembly of segments with breaks. **80j:93014**

Tang, Wang *See* Michel, Anthony N.; et al., **80b:93009**

Tatjewski, P. A penalty function approach to coordination in multilevel optimization problems. (French summary) **80a:93016**

Tenneriello, C. *See* Bondi, P.; et al., **80b:93006**

Tse, Edison *See* Arbel, Ami, **80d:93014**

Vallet, Claude (*with* Lafrenière, Lise; Moulin, Thiébaut; Le Guyader, Hervé) Arithmetical models for complex systems. (Russian summary) **80j:93015**

Vardulakis, A. I. G. *See* Stoyle, P. N. R., **80h:93011**

Vasenin, V. A. (*with* Samsonov, V. A.) Some properties of the impact-impulse control of a linear system. (Russian. English summary) **80b:93013**

Vidyasagar, Mathukumalli *See* El-Attar, R. A., **80b:93007**

Wilson, D. A. (*with* Misra, R. N.) Optimal reduction of multivariable systems. **80c:93017**

Womack, Baxter F. *See* Brady, H. Nelson; et al., **80m:93007**

Yoshikawa, Tsuneo Optimal control of large-scale systems—the study of decentralized control systems. (Japanese) **80f:93017**

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Fantin, J. *See* Darwish, M.; et al., **(80j:93100)**

Grippo, Luigi (*with* Lampariello, Francesco) Practical stability of large-scale discrete-time systems on product spaces. **(80a:93123)**

Grujić, Ljubomir T. *See* Burgat, Christian, **(80f:92011)**

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Rotar', V. I. Control models of a large complex of tasks under conditions of uncertainty. (Russian) **(80b:90084)**

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Konoplyk, V. O. Time of transient response of a linear vibratory second-order system. (Russian) 80g:93014
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Lovass-Nagy, Victor (*with* Miller, Richard J.; Powers, David L.) Reply to "Comments on: 'On system realization by matrix generalized inverses' " (Internat. J. Control 27 (1978), no. 4, 651–652) by E. Eitelberg and H. Hanselmann. 80d:93016
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Purcaru, Ion Some considerations from the mathematical theory of systems. (French and Russian summaries) 80g:93016
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Cybernetic systems *See* Self-organization of cybernetic systems, 80k:93014
Self-organization of cybernetic systems ★Самоорганизация кибернетических систем. (Russian) [Self-organization of cybernetic systems] 80k:93014

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Bernussou, J. *See* Burgat, Christian, (80a:93121)
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Davison, Edward J. (*with* Gesing, W.; Wang, Shih Ho) An algorithm for obtaining the minimal realization of a linear time-invariant system and determining if a system is stabilizable-detectable. (80b:93023)
(Dimitrov, V.) *See* Wechler, Wolfgang, (80g:68105)
(Dubov, Ju. A.) *See* Wilson, A. G., (80d:90030)
Gesing, W. *See* Davison, Edward J.; et al., (80b:93023)
Giacaglia, Giorgio E. O. ★Методы теории возмущений для нелинейных систем. (Russian) [Perturbation methods in nonlinear systems] (80k:34002)
Gorskiĭ, Ju. M. ★Информационные аспекты управления и моделирования. (Russian) [Informational aspects of control and modeling] (80k:94013)
(Imel'baev, Š. S.) *See* Wilson, A. G., (80d:90030)
Kodandapani, K. L. (*with* Setlur, Rangaswamy V.) A cellular array for multivalued logic functions. (80a:94057)
(Markeev, A. P.) *See* Giacaglia, Giorgio E. O., (80k:34002)
Merilees, Philip E. On spectral multiplication as viewed in physical space. (Russian summary) (80m:86009)
(Popkov, Ju. S.) *See* Wilson, A. G., (80d:90030)
Šarov, A. A. Interpretability of signs and the theory of classification. (Russian) (80k:68080)
Setlur, Rangaswamy V. *See* Kodandapani, K. L., (80a:94057)
(Šmul'jan, B. L.) *See* Wilson, A. G., (80d:90030)
(Sokol'skiĭ, A. G.) *See* Giacaglia, Giorgio E. O., (80k:34002)
Vink, H. A. Minimal TANT networks of functions with DON'T CARE's and some complemented input variables. (80b:94046)
Wang, Shih Ho *See* Davison, Edward J.; et al., (80b:93023)
Wechler, Wolfgang ★The concept of fuzziness in automata and language theory. (80g:68105)
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Kerr, T. H. Correction to: "An invalid norm appearing in control and estimation" (IEEE Trans. Automatic Control **AC-23** (1978), no. 1, 73–74). **80b:93022**

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Curtain, Ruth F. (*with* Pritchard, Anthony J.) A semigroup approach to infinite-dimensional system theory. **(80e:93073)**

Pritchard, Anthony J. *See* **Curtain, Ruth F., (80e:93073)**

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Adachi, Masao *See* **Akashi, Hajime; et al., 80e:93028**

Akashi, Hajime (*with* Imai, Hiroyuki; Adachi, Masao) Design of dynamic deadbeat controllers for discrete time linear multivariable systems. (Japanese. English summary) **80e:93028**

Alekseev, N. K. (*with* Rettiev, N. S.) The dependence of the control set on the parameter. (Russian) **80a:93022**

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(*with* Šapiro, A. V.) Controllability and observability of systems in Banach spaces. (Russian. Azerbaijani and English summaries) **80j:93018**

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Konstantinov, M. M. (*with* Petkov, Petko Hr.; Hristov, Nikolaĭ D.) Sequential canonical form and the synthesis of linear control systems. II. (Bulgarian. Russian and English summaries) 80j:93034
(*with* Petkov, Petko Hr.; Hristov, Nikolaĭ D.) The serial canonical form and synthesis of linear multivariable systems. (Polish and Russian summaries) 80j:93035
Maroulas, John (*with* Barnett, Stephen) Canonical forms for time-invariant linear control systems: a survey with extensions. II. Multivariable case. 80h:93020
Petkov, Petko Hr. *See* Konstantinov, M. M.; et al., 80j:93034 *and* Konstantinov, M. M.; et al., 80j:93035
Youla, Dante C. (*with* Gnavi, G.) Notes on *n*-dimensional system theory. 80b:93038

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Mutsuyoshi, E. *See* Suda, Nobuhide, (80g:93020)
Suda, Nobuhide (*with* Mutsuyoshi, E.) Invariant zeros and input-output structure of linear, time-invariant systems. 80g:93020)

93B15 Realizability of systems from input-output data

Avalov, G. V. An algebraic method in the theory of dynamical systems. I. (Russian. English summary) 80d:93025a
An algebraic method in the theory of dynamical systems. II. (Russian. English summary) 80d:93025b
Bradshaw, A. (*with* Fletcher, Leslie R.; Porter, B.) Synthesis of output-feedback control laws for linear multivariable continuous-time systems. 80b:93039
Casti, John L. Illusion or reality? The mathematics of attainable goals and irreducible uncertainties. 80i:93018
Crouch, P. E. Realisation theory for dynamical systems. 80g:93025
Fletcher, Leslie R. *See* Bradshaw, A.; et al., 80b:93339
Hisamoto, Takao Realizations of a state-space model from two-dimensional input-output map. 80m:93021
Kamen, Edward W. Use of algebraic methods in the design of controllers and observers for systems with time delays. 80j:93036
Nonoyama, Shigeki *See* Tarn, Tzyh Jong, 80f:93028
Porter, B. *See* Bradshaw, A.; et al., 80b:93039
Rosenbrock, H. H. Transformation of system equations. 80f:93019
Sen, Amiya K. Feedback control of a class of plasma instabilities. 80b:93040
Sontag, Eduardo D. Realization theory of discrete-time nonlinear systems. I. The bounded case. 80b:93041
Tarn, Tzyh Jong (*with* Nonoyama, Shigeki) An algebraic structure of discrete-time biaffine systems. 80f:93028

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Anderson, Brian D. O. Structure of a class of unimodular matrices. (80a:15016)
See also Bitmead, Robert R.; et al., (80a:15024)
Bitmead, Robert R. (*with* Kung, Sun Yuan; Anderson, Brian D. O.; Kailath, Thomas) Greatest common divisors via generalized Sylvester and Bezout matrices. (80a:15024)
Chen, Chi Tsong *See* Kao, Y. S., (80a:65087)
Evans, F. J. The informational content of system structure—a survey and some open problems. (80c:93021)
Kailath, Thomas *See* Bitmead, Robert R.; et al., (80a:15024)
Kao, Y. S. (*with* Chen, Chi Tsong) Comments on: "Efficient algorithm for irreducible realization of a rational matrix" (Internat. J. Control 20 (1974), 739–751) by P. Rózsa and N. K. Sinha. (80a:65087)
Krylov, V. V. Models of discrete systems with infinite-dimensional state space. (80j:93082)
Kung, Sun Yuan *See* Bitmead, Robert R.; et al., (80a:15024)
(Rózsa, P.) *See* Kao, Y. S.; et al., (80a:65087)
(Sinha, N. K.) *See* Kao, Y. S.; et al., (80a:65087)
Slivinskas, V. Methods of minimal realization of linear dynamical stationary systems. Introduction. (Russian. English and Latvian summaries) 80d:93051)

93B17 Transformation

Goto, Hideo On the optimal control of a system represented by a functional differential equation. (Japanese. English summary) 80b:93042
Owens, D. H. Dyadic expansions and their applications. 80d:93026

Secondary classifications:

Hodzickiĭ, A. G. *See* Timčenko, A. A., (80h:93030)
Timčenko, A. A. (*with* Hodzickiĭ, A. G.) Synthesis of multiply connected control systems by the inverse method. (Russian. English summary) 80h:93030)

93B20 Minimal systems representations

Fliess, Michel Remarque sur une variante des systèmes réguliers (ou bilinéaires). 80b:93043
Hinamoto, Takao (*with* Tomita, Shogo; Maekawa, Sadao) Canonical minimal realization problem for bilinear systems. 80d:93027
Maekawa, Sadao *See* Hinamoto, Takao; et al., 80d:93027
Marčenko, V. M. On the problem of the calculation of the minimal number of inputs of controllable dynamical systems. (Russian) 80a:93049
Pugh, A. C. Controllability and observability considerations for composite systems. 80h:93021
Tomita, Shogo *See* Hinamoto, Takao; et al., 80d:93027

Secondary classifications:

Hafez, Khaled M. *See* Kamen, Edward W., (80m:93046a) *and* Kamen, Edward W., (80m:93046b)
Kamen, Edward W. (*with* Hafez, Khaled M.) Algebraic theory of linear time-varying systems. (80m:93046a)
(*with* Hafez, Khaled M.) Erratum: "Algebraic theory of linear time-varying systems" [SIAM J. Control Optim. 17 (1979), no. 4, 500–510; MR 80m:93046a] (80m:93046b)
Wyman, Bostwick F. Time varying linear discrete-time systems: realization theory. (80j:93083)

93B25 Algebraic theory of time-invariant systems

Barnett, Stephen (*with* Maroulas, John) More on Routh's array and Bézoutian matrices. 80a:93050
Blomberg, Hans (*with* Ylinen, Raimo) Foundations of the polynomial theory for linear systems. 80a:93051
Boruhov, V. T. Invertibility criteria for linear stationary multivariable systems. 80f:93029
Davison, Edward J. Correction to: "The steady-state invertibility and feedforward control of linear time-invariant systems" (IEEE Trans. Automat. Control AC-21 (1976), no. 4, 529–534). 80c:93036
Frost, M. G. (*with* Storey, Colin) Equivalence of a matrix over $\mathcal{R}[s, z]$ with its Smith form. 80a:93052
Krabotko, V. V. (*with* Razmyslovič, G. P.) On the problem of complete control of dynamical systems. (Russian) 80g:93026
Maroulas, John *See* Barnett, Stephen, 80a:93050
Münzner, H. F. (*with* Prätzel-Wolters, D.) Minimal bases of polynomial modules, structural indices and Brunovsky-transformations. 80h:93022
Navarro, J. M. *See* Shieh, Leang S.; et al., 80a:93053
Prätzel-Wolters, D. *See* Münzner, H. F., 80h:93022
Razmyslovič, G. P. *See* Krabotko, V. V., 80g:93026
Shieh, Leang S. (*with* Wei, Y. J.; Navarro, J. M.) An algebraic method to determine the

common divisor, poles and transmission zeros of matrix transfer functions. **80a:93053**
Storey, Colin *See* **Frost, M. G., 80a:93052**
Wei, Y. J. *See* **Shieh, Leang S.; et al., 80a:93053**
Ylinen, Raimo *See* **Blomberg, Hans, 80a:93051**

Secondary classifications:

Aplevich, J. D. Tableau methods for analysis and design of linear systems. **(80m:93043)**
Kamen, Edward W. Use of algebraic methods in the design of controllers and observers for systems with time delays. **(80j:93036)**
Lions, Jacques-Louis Asymptotic methods in the optimal control of distributed systems. **(80g:49009)**

93B30 System identification

Aščepkov, L. T. (*with* Novosel'skiĭ, A. V.; Tjatjulkin, A. I.) An attempt at numerical identification of dynamical systems. (Russian) **80j:93037**
(*with* Badam, U.) Optimization of parameters of discontinuous dynamic systems. **80m:93022**
Badam, U. *See* **Aščepkov, L. T., 80m:93022**
Bányász, Cs. (*with* Keviczky, L.) Discrete-time identification of linear dynamic process. **80a:93054**
Bellman, Richard E. (*with* Roth, Robert S.) A scanning technique for systems identification. **80j:93038**
Brewer, John W. Kronecker products and matrix calculus in system theory. **80a:93055a**
Correction to: "Kronecker products and matrix calculus in system theory" (IEEE Trans. Circuits and Systems 25 (1978), no. 9, 772–781). **80a:93055b**
Brucoli, Michele (*with* Maione, Bruno; Torelli, Francesco) Algorithm for identification of multivariable discrete-time linear systems. **80d:93028**
Caines, Peter E. *See* **Goodrich, Robert L., 80j:93039**
Chavent, Guy About the stability of the optimal control solution of inverse problems. **80h:93023**
Dooge, J. C. I. (*with* Garvey, B. J.) The use of Meixner functions in the identification of heavily-damped systems. **80d:93029**
East, D. J. *See* **Longdon, L. W., 80f:93030**
Eisenfeld, Jerome *See* **Soni, B., 80h:93026**
Elliott, H. (*with* Wolovich, W. A.) Parameter adaptive identification and control. **80i:93020**
Garvey, B. J. *See* **Dooge, J. C. I., 80d:93029**
Goodrich, Robert L. (*with* Caines, Peter E.) On the nonstationary covariance realization problem. **80j:93039**
Goodwin, Graham C. (*with* Payne, Robert L.) ★Dynamic system identification. **80e:93046**
Guenther, Ronald B. (*with* Schmidt, R.) Remarks on parameter identification. **80i:93021**
Hansen, James V. (*with* Heitger, Lester E.) Mathematical approaches to evaluating information updating intervals. **80b:93044**
Hasiwicz, Zygmunt Progressive identification of complex systems. I. Statement of the problem. (Russian summary) **80j:93040**
Heitger, Lester E. *See* **Hansen, James V., 80b:93044**
Kacjuba, O. A. *See* **Ždanov, A. I., 80m:93027**
Keviczky, L. *See* **Bányász, Cs., 80a:93054**
Khamura, Shinzo (*with* Nakagiri, Shin-ichi) Identifiability of internal and boundary parameters in distributed systems of parabolic type. **80e:93047**
Kobayashi, Toshihiro Determination of unknown functions for a class of distributed parameter systems. **80e:93048**
Parameter identifiability for distributed parameter systems of hyperbolic type. **80m:93023**
Korotnik, Ju. Ja. *See* **Kuz'min, N. N.; et al., 80m:93024**
Kuszta, B. (*with* Sinha, N. K.) Synthesis of optimal input signals for system identification. **80h:93024**
Kuz'min, N. N. (*with* Korotnik, Ju. Ja.; Sedov, A. N.) Identification of functions with orthogonal properties by the group method of data handling. **80m:93024**
de Larminat, Philippe (*with* Thomas, Yves) ★Automatique des systèmes linéaires. Tome 1. **80h:93025a**
(*with* Thomas, Yves) ★Automatique des systèmes linéaires. Tome 2. **80h:93025b**
(*with* Thomas, Yves) ★Automatique des systèmes linéaires. Tome 3. **80h:93025c**
Ljung, Lennart (*with* Rissanen, Jorma) On canonical forms, parameter identifiability and the concept of complexity. **80j:93041**
Longdon, L. W. (*with* East, D. J.) A simple geometrical technique for determining loop frequency response bounds which achieve prescribed sensitivity specifications. **80f:93030**
Maione, Bruno *See* **Brucoli, Michele; et al., 80d:93028**
Maslowski, A. Finite elements concept in state identification of large scale distributed parameters systems. **80b:93045**
Meleško, V. I. Use of recursive optimal estimates with pseudoinversion in identification problems. **80e:93049**
Mikadze, I. S. A method of determining the interval coefficient of readiness. (Russian. Georgian and English summaries) **80g:93027**
Nakagiri, Shin-ichi *See* **Kitamura, Shinzo, 80e:93047**
Novosel'skiĭ, A. V. *See* **Aščepkov, L. T.; et al., 80j:93037**
Nowosad, Krzysztof A. Properties of the structure of repetitive control under high sampling frequency. (Polish. Russian and English summaries) **80a:93056**
Nuyan, Seyhan A lemma for the problem of exponentially convergent adaptive identification and state observation schemes. **80m:93025**
Paraskevopoulos, P. N. Exact model matching of linear time-varying systems. **80b:93046**
Payne, Robert L. *See* **Goodwin, Graham C., 80e:93046**
Raefsky, A. *See* **Vemuri, V., 80c:93037**
Rahman, N. S. Identification of controlled objects (survey). **80j:93042**
(Reid, J. Gary) *See* **Vajda, Sándor, 80f:93031**
Rissanen, Jorma *See* **Ljung, Lennart, 80j:93041**
Roth, Robert S. *See* **Bellman, Richard E., 80j:93038**
Schmidt, R. *See* **Guenther, Ronald B., 80i:93021**
Sedov, A. N. *See* **Kuz'min, N. N.; et al., 80m:93024**
Sinha, N. K. *See* **Kuszta, B., 80h:93024**
Soni, B. (*with* Eisenfeld, Jerome) System identification of models exhibiting exponential, harmonic and resonant modes. **80h:93026**
Sontag, Eduardo D. On the length of inputs necessary in order to identify a deterministic linear system. **80m:93026**
Srinathkumar, S. Minimal order observers for linear functions of the state vector. **80b:93047**
Takeda, Tatsuoki (*with* Toi, Kazuo; Tsunematsu, Toshihide) Application of nonlinear optimization algorithms to the problems in plasma physics and thermonuclear fusion research. **80g:93028**
Thelidze, D. I. Parametric identification of linear dynamic systems. (Russian. English and Georgian summaries) **80d:93030**
Thomas, Yves *See* **de Larminat, Philippe, 80h:93025a; de Larminat, Philippe, 80h:93025b** *and* **de Larminat, Philippe, 80h:93025c**
Tjatjulkin, A. I. *See* **Aščepkov, L. T.; et al., 80j:93037**
Tkačenko, O. I. Identification of the state of a linear nonstationary system with one immeasurable coordinate. (Russian. English summary) **80e:93050**
Toi, Kazuo *See* **Takeda, Tatsuoki; et al., 80g:93028**
Torelli, Francesco *See* **Brucoli, Michele; et al., 80d:93028**
Tsunematsu, Toshihide *See* **Takeda, Tatsuoki; et al., 80g:93028**
Vajda, Sándor Comments on: "Structural identifiability in linear time-invariant systems" (IEEE Trans. Automat. Control AC-22 (1977), no. 2, 242–246) by J. Gary Reid. **80f:93031**
Vemuri, V. (*with* Raefsky, A.) On a new approach to parameter estimation by the method of sensitivity functions. **80c:93037**
Wolovich, W. A. *See* **Elliott, H., 80i:93020**
Yasui, Syozo Stochastic functional Fourier series, Volterra series, and nonlinear systems analysis. **80g:93029**
Ždanov, A. I. (*with* Kacjuba, O. A.) Specifics of applying the method of least squares to estimation of linear difference operators in identification problems. **80m:93027**

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Bali, H. N. *See* **Hill, W. J.; et al., (80e:92001)**
Baltrūnas, Jonas (*with* Golosov, Ju. I.) Estimates of the linear operator parameters for stochastic adaptation algorithms. I. Discrete time, methods, convergence. (Russian. Lithuanian summary) **(80g:62064a)**
(*with* Golosov, Ju. I.) Estimates of the linear operator parameters for stochastic adaptation algorithms. II. Discrete time, moments, asymptotic normality. (Russian. Lithuanian summary) **(80g:62064b)**
(*with* Golosov, Ju. I.) Estimates of the linear operator parameters for stochastic adaptation algorithms. III. Continuous time. (Russian. Lithuanian summary) **(80g:62064c)**
Bossi, A. (*with* Cobelli, C.; Colussi, L.; Romanin-Jacur, G.) A method of writing symbolically the transfer matrix of a compartmental model. **(80g:92008)**
Carson, E. R. *See* **Hill, W. J.; et al., (80e:92001)**
Cesini, G. (*with* Guattari, G.; Lucarini, G.; Palma, C.) An iterative method for restoring noisy images. (French and German summaries) **(80a:94003)**
Chen, Pei De Matrix equations and stability of filtering. (Chinese) **(80a:93164)**
Cobelli, C. *See* **Bossi, A.; et al., (80g:92008)**
Colonius, Fritz (*with* Hinrichsen, Diederich) Differential state space descriptions of nonlinear time variant hereditary differential systems. **(80f:93071)**
Colussi, L. *See* **Bossi, A.; et al., (80g:92008)**
Eisenfeld, Jerome Relationship between stochastic and differential models of compartmental systems. **(80c:92009)**
On identifiability of impulse-response in compartmental systems. **(80g:92009)**
Finkelstein, L. *See* **Hill, W. J.; et al., (80e:92001)**
Golosov, Ju. I. *See* **Baltrūnas, Jonas, (80g:62064a); Baltrūnas, Jonas, (80g:62064b)** *and* **Baltrūnas, Jonas, (80g:62064c)**
Guattari, G. *See* **Cesini, G.; et al., (80a:94003)**
Hart, Carolyne M. (*with* Mulholland, Robert J.) Structural identifiability of compartmental systems based upon measurements of accumulated tracer in closed pools. **(80j:92002)**
Hill, W. J. (*with* Bali, H. N.; Carson, E. R.; Finkelstein, L.) Identification of complex biological systems through mathematical pattern recognition. **(80e:92001)**
Hinrichsen, Diederich *See* **Colonius, Fritz, (80f:93071)**
Lucarini, G. *See* **Cesini, G.; et al., (80a:94003)**
Mulholland, Robert J. *See* **Hart, Carolyne M., (80j:92002)**
Palma, C. *See* **Cesini, G.; et al., (80a:94003)**
Pearson, A. E. Nonlinear system identification with limited time data. **(80d:93079)**
Pell, Jürgen Inverse problems in growth dynamics. **(80j:92003)**
Romanin-Jacur, G. *See* **Bossi, A.; et al., (80g:92008)**
Stoyle, P. N. R. *See* **Vardulakis, A. I. G., (80e:12025)**
Vardulakis, A. I. G. (*with* Stoyle, P. N. R.) Generalized resultant theorem. **(80e:12025)**
Wang, P. K. C. Identification problems in plasma physics. **(80a:78023)**

93B35 Sensitivity

Antsaklis, P. J. Some relations satisfied by prime polynomial matrices and their role in linear multivariable system theory. **80j:93043**
Ayiku, M. N. B. *See* **Kuo, M. C. Y., 80d:93032**
Cruz, J. B., Jr. *See* **Krogh, Bruce, 80b:93048** *and* **Krogh, Bruce, 80d:93031**
Elrazaz, Z. *See* **Sinha, N. K., 80b:93049**
Fairman, Frederick W. *See* **Missaghie, M. M., 80e:93051**
Fukata, Satoru (*with* Takata, Masaru) On sampling period sensitivities of the optimal stationary sampled-data linear regulator. **80c:93038**
Jakovlev, V. P. *See* **Red'ko, S. F.; et al., 80g:93030**
Krementulo, Ju. V. *See* **Red'ko, S. F.; et al., 80g:93030**

Krogh, Bruce (*with* Cruz, J. B., Jr.) Design of sensitivity-reducing compensators using observers. **80b:93048**

(*with* Cruz, J. B., Jr.) On a canonical form in: "Design of sensitivity reducing compensators using observers" (IEEE Trans. Automat. Control **23** (1978), no. 6, 1058–1062). **80d:93031**

Kuo, M. C. Y. (*with* Ayiku, M. N. B.) Synthesis of low-sensitivity optimal control in distributed parameter systems. **80d:93032**

Misraghie, M. M. (*with* Fairman, Frederick W.) Desensitizing observers for LQG feedback control. **80e:93051**

O'Malley, R. E., Jr. Singular perturbations and optimal control. **80a:93057**

Pister, K. S. *See* **Ray, D.; et al., 80a:93058**

Polak, Elijah *See* **Ray, D.; et al., 80a:93058**

Ray, D. (*with* Pister, K. S.; Polak, Elijah) Sensitivity analysis for hysteretic dynamic systems: theory and applications. **80a:93058**

Red'ko, S. F. (*with* Krementulo, Ju. V.; Ušlakov, V. F.; Šabel'skiĭ, V. P.; Jakovlev, V. P.) The determination of some parameters of mechanical systems with the aid of sensitivity functions. (Russian) **80g:93030**

Rozenvasser, E. N. Sufficient conditions for applicability of the first approximation in problems of sensitivity theory. **80c:93039**

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Sinha, N. K. (*with* Elrazaz, Z.) First- and second-order eigenvalue sensitivities of aggregated models. **80b:93049**

Subbayyan, R. (*with* Vaithilingam, M. C.) Sensitivity-reduced design of linear regulators. **80d:93033**

Takata, Masaru *See* **Fukata, Satoru, 80c:93038**

Ušlakov, V. F. *See* **Red'ko, S. F.; et al., 80g:93030**

Vaithilingam, M. C. *See* **Subbayyan, R., 80d:93033**

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Hwang, Jenn Tai (*with* Rabitz, Herschel) The Green's function method of sensitivity analysis in quantum dynamics. **(80b:81064)**

Rabitz, Herschel *See* **Hwang, Jenn Tai, (80b:81064)**

(Reid, J. Gary) *See* **Vajda, Sándor, (80f:93031)**

Vajda, Sándor Comments on: "Structural identifiability in linear time-invariant systems" (IEEE Trans. Automat. Control **AC-22** (1977), no. 2, 242–246) by J. Gary Reid. **(80f:93031)**

93B40 Computational methods

Chou, F. S. (*with* Sirisena, H. R.) Computation of optimal controls for nonlinear distributed-parameter systems using multivariate spline functions. **80f:93032**

Dormido, S. (*with* de la Sen, M.) A note on the transmission of relative errors in the observability problem. **80j:93044**

Evtušenko, Ju. G. *See* **Gračev, N. I., 80b:93050**

Gračev, N. I. (*with* Evtušenko, Ju. G.) A library of programs for the solution of optimal control problems. (Russian) **80b:93050**

Nishikawa, Yoshikazu *See* **Ojika, Takeo; et al., 80c:93040**

Ojika, Takeo (*with* Nishikawa, Yoshikazu; Okudaira, Masashi) A time-decomposition algorithm for a stiff linear two-point boundary-value problem and its application to a nonlinear optimal control problem. **80c:93040**

Okudaira, Masashi *See* **Ojika, Takeo; et al., 80c:93040**

de la Sen, M. *See* **Dormido, S., 80j:93044**

Sirisena, H. R. *See* **Chou, F. S., 80f:93032**

Zaharov, G. K. On the contraction method for a class of admissible controls. (Russian) **80k:93020**

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Crolet, M. H. *See* **Brauner, Claude-Michel; et al., (80c:76015)**

Dudkin, L. M. (*with* Kasparson, V. A.) Generalized processes of iterative aggregation for solving a system of interproduct input-output equations. **(80e:93013)**

Eisenfeld, Jerome Relationship between stochastic and differential models of compartmental systems. **(80c:92009)**

Gay, B. *See* **Brauner, Claude-Michel; et al., (80c:76015)**

Kasparson, V. A. *See* **Dudkin, L. M., (80e:93013)**

Mahalanabis, A. K. (*with* Sinha, N. K.) On the design of stationary feedback regulators for linear discrete systems. **(80b:93166)**

Misiti, M. *See* **Brauner, Claude-Michel; et al., (80c:76015)**

Sinha, N. K. *See* **Mahalanabis, A. K., (80b:93166)**

93B50 Synthesis problems

93B55 Pole and zero placement problems

93B99 None of the above, but in this section

Abdel-Moneim, T. M. *See* **Sebakhy, O. A., 80b:93057**

Anderson, Brian D. O. *See* **Potter, John M.; et al., 80e:93053**

Anisimov, V. V. The asymptotic analysis of the reliability of complex systems under the influence of inhomogeneous random perturbations. (Russian. English summary) **80c:93041**

Arov, D. Z. Passive linear steady-state dynamical systems. (Russian) **80g:93031**

Bradshaw, A. (*with* Porter, B.) Design of linear multivariable continuous-time tracking systems incorporating high-gain decentralized error-actuated controllers. **80f:93033**

Brunovský, Pavol Every normal linear system has a regular time-optimal synthesis. (Russian summary) **80c:93042**

Burovoi, I. A. *See* **Emel'janov, S. V.; et al., 80i:93023**

Cambanis, Stamatis *See* **Huang, Steel T., 80d:93035**

Činaev, P. I. (*with* Džafarov, Z. M.; Iskanderov, I. A.) Optimization of multiply connected systems with variable structure. (Russian) **80f:93022**

D'Azzo, J. J. *See* **Porter, B., 80a:93065**

Denham, M. J. *See* **Pearlman, J. G., 80b:93029**

Desoer, C. A. Perturbation in the I/O map of a non-linear feedback system caused by large plant perturbation. **80a:93059**

Dewilde, Patrick *See* **Van Dooren, Paul M.; et al., 80b:93061**

Džafarov, Z. M. *See* **Činaev, P. I.; et al., 80i:93022**

Elsing, Rikus Separability of 2-D transfer matrices. **80b:93051**

Emel'janov, S. V. (*with* Burovoĭ, I. A.; Krapuhina, N. V.) Automatic regulation systems with controllable object structure. (Russian) **80i:93023**

Fam, Adly T. (*with* Meditch, James S.) Correction to: "A canonical parameter space for linear systems design" (IEEE Trans. Automat. Control **23** (1978), no. 3, 454–458). **80e:93052**

Feintuch, Avraham Causality and strict causality for symmetric bilinear systems. **80b:93052**

Fliess, Michel Un codage non commutatif pour certains systèmes échantillonnés non linéaires. (English summary) **80b:93053**

Foster, Leslie V. A practical solution to the minimal design problem. **80e:93043**

Funahashi, Yasuyuki A class of state observers for bilinear systems. **80a:93060**

Gera, Amos *See* **Horowitz, Isaac, 80f:93035**

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Hiljuk, L. F. A stochastic multicriterial problem in controlling a complex of users of water resources in river basins. Probabilistic criteria for choosing a solution in the Pareto region. **80g:93032**

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Pearson, A. E. (*with* Chin, Y. K.) Identification of MIMO systems with partially decoupled parameters. **80l:93033**
Pesch, Hans Josef Numerical computation of neighboring optimum feedback control schemes in real-time. **80j:93057**
Petriczek, Grażyna On the use of the ε-technique in two-level dynamic optimization. (Polish and Russian summaries) **80c:93053**
Petrovskiĭ, A. B. *See* **Britov, G. S., 80a:93084**
Popov, E. P. *See* **Krut'ko, P. D., 80h:93035**
Porter, B. (*with* Bradshaw, A.) Design of linear multivariable continuous-time high-gain output-feedback regulators. **80c:93054**
Potapov, A. P. Some problems connected with output control. (Russian. English summary) **80k:93029**
Rettiev, N. V. Continuity and discontinuity of the Bellman function. (Russian) **80c:93055**
Saakjan, L. S. Orientation of a satellite in a specified direction. **80l:93034**
Schmitendorf, W. E. A general sufficiency theorem for minimax control. **80e:93061**
Siz, V. N. *See* **Ignatenko, V. N.; et al., 80g:93039**
Stenin, A. A. *See* **Ignatenko, V. N.; et al., 80g:93039**
Sztajnic, Jerzy Necessary conditions for existence of extremum for controls with bounded variation. (Polish summary) **80g:93040**
Utkin, V. I. (*with* Young, K. David) Methods for constructing discontinuity planes in multidimensional variable structure systems. **80d:93039**
Young, K. David *See* **Utkin, V. I., 80d:93039**
Zločevskiĭ, S. I. Application of B. V. Bulgakov's method of normal coordinates in the solution of optimal control problems. (Russian. English summary) **80d:93040**
Zubov, S. V. On periodic solutions of hysteresis systems. (Russian) **80e:93062**
Zubov, V. I. Dynamics of an encounter. (Russian) **80e:93063**

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Bradshaw, A. (*with* Fletcher, Leslie R.; Porter, B.) Synthesis of output-feedback control

laws for linear multivariable continuous-time systems. (80b:93039)

Cavin, R. K., III *See* **Howze, J. W., (80c:49016)**

Colonius, Fritz (*with* Hinrichsen, Diederich) Optimal control of functional differential systems. (80k:49014)

Conti, R. Control and the van der Pol equation. (80e:93032)

Dykta, V. A. Optimality of singular controls in ordinary dynamical systems. (Russian) (80j:49027)

Dymkov, M. P. A method of constructing sets of unimprovable values of a functional in a problem of vector optimization. (Russian) (80j:49035)

Fletcher, Leslie R. *See* **Bradshaw, A.; et al., (80b:93039)**

Frehse, Jens Existenz optimaler Steuerungen. (80h:49008)

Hájek, Otomar L_1-optimization in linear systems with bounded controls. (80k:49002)

Hinrichsen, Diederich *See* **Colonius, Fritz, (80k:49014)**

Hirata, Hirosori Optimal control of nonlinear population dynamics. (80k:92010)

Howze, J. W. (*with* Cavin, R. K., III) Regulator design with modal insensitivity. (80c:49016)

Ignatenko, V. N. (*with* Kondrašova, N. V.) Synthesis of an algorithm for the optimal programmed control of a system with variable parameters. (Russian. English summary) (80j:49037)

Jusin, Robert Conditions nécessaires d'optimalité dans un problème d'optimisation en horizon infini. (English summary) (80m:49013)

Koh Hock Lye A sufficient condition for global solution of Riccati equation. (80m:34066)

Kondrašova, N. V. *See* **Ignatenko, V. N., (80j:49037)**

Kopielski, Thomas Eine Methodik zur Lösung eines optimalen Steuerungsproblems. (Russian, English and French summaries) (80d:49026)

Levitin, E. S. (*with* Miljutin, A. A.; Osmolovskiĭ, N. P.) Higher order conditions for local minima in problems with constraints. (Russian) (80f:49001)

Liu, Pan Tai Asymptotically decoupled systems. (80c:93016)

Marinescu, C. (*with* Marinescu, E.) On a problem of differential equations with impulses. (Romanian) (80m:34076)

Marinescu, E. *See* **Marinescu, C., (80m:34076)**

McGlothlin, Gerald E. Optimal control of distributed parameter systems defined on a semi-infinite spatial interval. (80f:49023)

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Müller, Hans-Otfried Herleitung eines stochastischen Maximumprinzips mit Variationsmethoden. (English and Russian summaries) (80k:49009)

Necula, Maria-Ana An algorithm for fast evaluation of time functions. (80e:68074a)

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Pierce, J. G. (*with* Schumitzky, Alan) Optimal impulsive control of compartment models. II. Algorithm. (80g:90120)

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Razzaghi, M. Conjugate point conditions for linear quadratic control problems. (80i:49024)

A computational solution for a matrix Riccati differential equation. (80e:65085)

Redden, G. W. Difference approximations to boundary value problems with deviating arguments. (80m:65060)

Rettler, N. S. Some properties of minimal invariant sets of control systems. (Russian) (80b:49033)

Rossmann, I. V. Complex estimation of a system and estimates of subsystems. (80b:49013)

Samsonov, V. A. *See* **Vasenin, V. A., (80b:93013)**

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Sročko, V. A. A technique for obtaining necessary optimality conditions in continuous control problems with a free right end. (Russian) (80j:49018)

Sussmann, Héctor J. A bang-bang theorem with bounds on the number of switchings. (80k:49009)

Tagiev, M. G. A necessary and sufficient condition for the strong extremum in a degenerate problem of the calculus of variations. (Russian) (80k:49016)

Varlamov, V. I. Kinematic similarity of linear almost periodic systems. (Russian) (80i:34058)

Vasenin, V. A. (*with* Samsonov, V. A.) Some properties of the impact-impulse control of a linear system. (Russian. English summary) (80b:93013)

93C20 Systems governed by partial differential equations

Abbasov, A. A. (*with* Sadyhov, G. G.) An optimal control problem in heat conductivity theory. (Russian. Azerbaijani and English summaries) 80b:93075

(Alferov, V. V.) *See* **Mathematical methods of control of systems with distributed parameters, 80d:93041**

Amouroux, Marcel (*with* Babary, Jean Pierre; El Jaï, Abdelhaq) Adaptive open loop control for a class of distributed parameter systems. 80e:93064

Arkin, V. I. (*with* Saksonov, M. T.) Necessary optimality conditions in problems of the control of stochastic differential equations. (Russian) 80b:93076

Babary, Jean Pierre *See* **Amouroux, Marcel; et al., 80e:93064**

Bačoi, G. S. The solution of a problem of synthesis of optimal control of systems with distributed parameters. (Russian) 80a:93087

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Balakrishna, M. (*with* Hullender, David A.) Evaluation of quasilinear techniques for nonlinear processes with random inputs. 80k:93030

Balakrishnan, A. V. Boundary control of parabolic equations: *L-Q-R* theory. 80j:93058

Balas, Mark J. Modal control of certain flexible dynamic systems. 80j:93059

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Berger, Jacques Optimal control of an extruder. 80a:93088

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Ch'ueh, Wan Jo Hsin A feedback control for a linear hyperbolic system. 80c:93056

Delfour, M. C. The linear quadratic optimal control problem over an infinite time horizon for a class of distributed parameter systems. 80e:93065

Dubé, Bharat T. Optimal control of a diffusion process with reflecting boundaries and both continuous and lump costs. 80g:93041

Dowrick, G. *See* **Stafford, E. M., 80e:93070**

Egorov, A. I. ★Оптимал'ное управление тепловыми и диффузионными процессами. (Russian) [Optimal control of thermal and diffusion processes] 80b:93077

(*with* Gasanov, Z. M.) Synthesis of optimal control for systems with distributed parameters. (Russian. Azerbaijani and English summaries) 80b:93078

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Gani, Naoum Application à la théorie de la commande optimale. II. (English summary) 80c:93058

Garaščenko, F. G. (*with* Harčenko, I. I.) The problem of numerical solution of the optimal control in relay systems. (Russian. English summary) 80c:93057

Gasanov, Z. M. *See* **Egorov, A. I., 80b:93078**

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Hölder, Ernst Treibstoffoptimale Störungen von Satellitenbahnen im Raum eines anziehenden Zentrums. II. Störungsdifferentialgleichungen bei Raketenschub als Indikatrix eines Variationsproblems. 80f:93040

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Kerimbekov, A. The Bellman method in problems of control of processes that are described by hyperbolic systems. (Russian) 80e:93066

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Kuznecov, Ju. A. Necessary optimality conditions for problems of system control described by equations of elliptic type. (Russian) 80g:93042

Lautala, P. A. J. On the modelling and solving of an optimal control problem of hydro-electric power plant systems. 80c:93059

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Ray, W. H. Some recent applications of distributed parameter control theory—a survey. 80e:93069

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Simionescu, C. (*with* Simionescu, Claudia Lidia) Complex analysis methods in control theory. (Romanian summary) 80j:93062

Simionescu, Claudia Lidia *See* **Simionescu, C., 80j:93062**

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Mathematical methods of control of systems with distributed parameters

★Математические методы управления системами с распределенными параметрами. (Russian) [Mathematical methods of control of systems with distributed parameters] 80d:93041

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Balas, Mark J. Feedback control of linear diffusion processes. (80i:93049)

(Banks, S. P.) *See* **Control of distributed parameter systems, (80c:93003)**

Barron, Emmanuel Nicholas Control problems for parabolic equations on controlled domains. (80h:49001)

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Di Pillo, G. (*with* Grippo, Luigi) On the method of multipliers for a class of distributed parameter systems. **(80k:49023)**
Eichenauer, W. Zur optimalen Randkontrolle eines schwingenden Balkens. **(80d:73048)**
Galan, V. P. Regulation effect in resilient symmetric hyperbolic systems. (Russian. English summary) **(80k:78031)**
Grippo, Luigi *See* **Di Pillo, G., (80k:49023)**
Iwazumi, Tetsuo *See* **Kando, Hisashi, (80k:49015)**
Kando, Hisashi (*with* Iwazumi, Tetsuo) Suboptimal control of a singularly perturbed system having the terminal condition with zero slope. (Japanese. English summary) **(80k:49015)**
Kerimov, A. K. Galerkin approximation for optimal control problems with distributed parameters of parabolic type. (Russian) **(80k:65057)**
Krylov, N. V. On the theory of controllable diffusion processes. (Russian) **(80d:93021)**
Some new results in the theory of controlled diffusion processes. (Russian) **(80j:60104)**
Li, Da Qian Propriétés d'espaces fonctionnels intervenant en contrôle optimal. (English summary) **(80k:49004)**
Lions, Pierre-Louis Contrôle de diffusions dans $\mathbb{R}^N$. (English summary) **(80b:49014)**
Littman, Walter Boundary control theory for hyperbolic and parabolic partial differential equations with constant coefficients. **(80a:35023)**
Poltavskiĭ, L. N. The finite controllability of infinite systems of pendulums. (Russian) **(80h:93017)**
(Pritchard, Anthony J.) *See* **Control of distributed parameter systems, (80c:93003)**
Pulvirenti, G. (*with* Santagati, G.) On the uniqueness of the solution to a minimum problem for a control process with distributed parameters. **(80h:49011)**
Santagati, G. *See* **Pulvirenti, G., (80h:49011)**
Schmidt, E. J. P. Georg (*with* Weck, Norbert) On the boundary behavior of solutions to elliptic and parabolic equations—with applications to boundary control for parabolic equations. **(80d:35065)**
Tzafestas, Spyros G. Multiplayer distributed-parameter differential games with sampled-state feedback control. **(80f:90168)**
Vasil'ev, O. V. A problem of optimal control of a process with distributed parameters and controllable boundary conditions. (Russian) **(80j:49020)**
Weck, Norbert *See* **Schmidt, E. J. P. Georg, (80d:35065)**
v. Wolfersdorf, Lothar Necessary optimality conditions for control processes with singular integral equations and elliptic equations. **(80j:49026)**
Necessary optimality conditions in some problems of parameter control. (German and Russian summaries) **(80k:49020)**
Control of distributed parameter systems ★Control of distributed parameter systems. **(80c:93003)**
Coventry *See* **Control of distributed parameter systems, (80c:93003)**
Distributed parameter systems *See* **Control of distributed parameter systems, (80c:93003)**
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Control of Distributed Parameter Systems *See* **Control of distributed parameter systems, (80c:93003)**

93C22 Systems governed by integral equations

Artjuhin, Ju. P. (*with* Kargu, L. I.; Simaev, V. L.) ★Системы управления космических аппаратов, стабилизированных вращением. (Russian) [Control systems for satellites stabilized by rotation] **80g:93044**
Burger, Jacques (*with* Geisz, Walter) Commande optimale d'un système à paramètres répartis. **80g:93045**
Geisz, Walter *See* **Burger, Jacques, 80g:93045**
Kaimkulov, Y. Two-sided estimates of the minimum of functionals of quadratic type. (Russian) **80e:93072**
Kargu, L. I. *See* **Artjuhin, Ju. P.; et al., 80g:93044**
Klement'ev, G. P. Optimality conditions for processes that are determined by integral equations. (Russian) **80c:93064**
Litvinov, V. G. A problem of the optimal control of the natural frequency of a plate of variable thickness. (Russian) **80g:93046**
Litvinova, O. A. *See* **Vasil'ev, F. P.; et al., 80g:93047**
Simaev, V. L. *See* **Artjuhin, Ju. P.; et al., 80g:93044**
Vasil'ev, F. P. (*with* Voroncov, M. A.; Litvinova, O. A.) Optimal control of the thermal self-interaction process. (Russian) **80g:93047**
Voroncov, M. A. *See* **Vasil'ev, F. P.; et al., 80g:93047**

Secondary classifications:

Bellomo, N. (*with* Pistone, G.) Direct solution methods for a class of integral equations with random distribution of the inhomogeneous part. **(80m:45021)**
Pistone, G. *See* **Bellomo, N., (80m:45021)**
Ramm, A. G. The stability of control systems. (Russian) **(80b:93116)**

93C25 Systems in abstract spaces

Barbu, Viorel Convex control problems and Hamiltonian systems of infinite intervals. **80d:93042**
Curtain, Ruth F. (*with* Pritchard, Anthony J.) A semigroup approach to infinite-dimensional system theory. **80e:93073**
Jakubovič, V. A. On the abstract theory of optimal control. III. (Russian) **80j:93064**
Knowles, Gregory P. Some problems in the control of distributed systems, and their numerical solution. **80c:93065**
Pritchard, Anthony J. Infinite-dimensional linear-systems theory. **80e:93074**
See also **Curtain, Ruth F., 80e:93073**
Singer, I. On the Pontryagin maximum principle for constant-time linear control systems in Banach spaces. **80f:93042**
Somowski, Andrzej M. Optimal control of infinite-dimensional linear systems—a survey of recent results. (Polish. Russian and English summaries) **80a:93093**
Topuzu, Elena Properties of the accessible set in a Hilbert space. (Romanian. English summary) **80i:93036**
Wnuk, Andrzej Problems of optimization in linear spaces without norm of the trajectories of systems. (Polish. English and Russian summaries) **80a:93094**

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Dončev, Asen L. *See* **Gičev, Todor R., (80d:49030)**
Gičev, Todor R. (*with* Dončev, Asen L.) Convergence of the solutions of convex optimal control problems with time delay. (Italian summary) **(80d:49030)**
Girko, V. L. (*with* Vinogradskaja, A. V.) The control of the spectrum of linear operators in Hilbert space. (Russian. English summary) **(80f:47016)**
Vinogradskaja, A. V. *See* **Girko, V. L., (80f:47016)**

93C30 Systems governed by functional relations other than differential or integral equations

Campbell, Stephen L. Limit behavior of solutions of singular difference equations. **80c:93066**
Findeisen, Władysław (*with* Malinowski, Krzysztof) Two-level control and coordination for dynamical systems. (Polish and Russian summaries) **80g:93048**
Harrington, David P. *See* **White, Chelsea C., III, 80c:93069**
Malinowski, Krzysztof *See* **Findeisen, Władysław, 80g:93048**
Mardanov, M. D. Optimality of singular controls in systems with lag. (Russian. Azerbaijani and English summaries) **80j:93065**
Solotareff, Marc Convergence vers zéro de l'erreur de comportement dans un algorithme de commande adaptative. (English summary) **80c:93067**
Stassinopoulos, G. I. (*with* Vinter, R. B.) Continuous dependence of solutions of a differential inclusion on the right hand side with applications to stability of optimal control problems. **80c:93068**
Vinter, R. B. *See* **Stassinopoulos, G. I., 80c:93068**
White, Chelsea C., III (*with* Harrington, David P.) Application of Jensen's inequality for adaptive suboptimal design. **80c:93069**

Secondary classifications:

Jakubovič, V. A. *See* **Matveev, A. S., (80b:49015)**
MacFarlane, Alistair G. J. *See* **Postlethwaite, Ian, (80j:93073)**
Matveev, A. S. (*with* Jakubovič, V. A.) Optimal control of certain systems with distributed parameters. (Russian) **(80b:49015)**
Postlethwaite, Ian (*with* MacFarlane, Alistair G. J.) ★A complex variable approach to the analysis of linear multivariable feedback systems. **(80j:93073)**

93C35 Multivariable systems

Anderson, Brian D. O. *See* **Hung, Nguyen T., 80c:93070**
Boĭčuk, L. M. (*with* Voroneckiĭ, I. Ja.; Ohmakevič, V. F.) Method of synthesis of two-level control systems for interconnected objects. (Russian) **80j:93066**
Cameron, R. (*with* Kouvaritakis, B.) The relative stability margins of multivariable systems. A characteristic locus approach. **80m:93037**
Hung, Nguyen T. (*with* Anderson, Brian D. O.) Triangularization technique for the design of multivariable control systems. **80c:93070**
Johnson, M. A. Diagonal dominance and the method of pseudodiagonalisation. **80j:93067**
Jordan, David *See* **Lee, Gordon; et al., 80g:93049a** *and* **Porter, B., 80g:93049b**
Kaczorek, Tadeusz Minimal realization in special canonical form for multivariable systems. (Russian summary) **80m:93038**
Kouvaritakis, B. *See* **Cameron, R., 80m:93037**
Lee, Gordon (*with* Jordan, David; Sohrwardy, Munir) A pole assignment algorithm for multivariable control systems. **80g:93049a**
See also **Porter, B., 80g:93049b**
Mossaheb, S. Boundedness properties of nonlinear multivariable systems. **80m:93039**
Ohmakevič, V. F. *See* **Boĭčuk, L. M.; et al., 80j:93066**
Porter, B. Computation of the zeros of linear multivariable systems. **80j:93068**
Comments on: "A pole assignment algorithm for multivariable control systems" [IEEE Trans. Automat. Control **24** (1979), no. 2, 357–362; MR 80g:93049] by G. Lee, D. Jordan and M. Sohrwardy. **80g:93049b**
Postlethwaite, Ian Algebraic-function theory in the analysis of multivariable feedback systems. **80j:93069**
Sohrwardy, Munir *See* **Lee, Gordon; et al., 80g:93049a** *and* **Porter, B., 80g:93049b**
Voroneckiĭ, I. Ja. *See* **Boĭčuk, L. M.; et al., 80j:93066**

Secondary classifications:

Bradshaw, A. *See* **Porter, B., (80c:93054)**
El-Sherief, H. (*with* Sinha, N. K.) Identification of multivariable systems in the transfer-function matrix form. **(80i:93059)**
Porter, B. (*with* Bradshaw, A.) Design of linear multivariable continuous-time high-gain output-feedback regulators. **(80c:93054)**
Rolewicz, Stefan On Pontryagin maximum principle for systems with non-one-point target sets and systems with additional constraints. (Russian and French summaries) **(80j:49030)**
Sinha, N. K. *See* **El-Sherief, H., (80i:93059)**
Sinha, P. K. A new condition for output feedback decoupling of multivariable systems. **(80c:93011)**
Stoyle, P. N. R. *See* **Vardulakis, A. I. G., (80c:93092)**
Subbayyan, R. (*with* Vaithilingam, M. C.) Sensitivity-reduced design of linear regulators. **(80d:93033)**
Vaithilingam, M. C. *See* **Subbayyan, R., (80d:93033)**
Vardulakis, A. I. G. (*with* Stoyle, P. N. R.) An algorithm for decoupling and maximal pole assignment in multivariable systems by the use of state feedback. **(80c:93092)**

93C40 Adaptive

Abouelwafa, M. A. (*with* Hamza, M. H.) Design of an adaptive controller using multi-level and sensitivity concepts. **80c:93071**

Agamaljan, G. A. Adaptive systems for homogeneous processes with continuous state space and controls. (Russian. English summary) **80h:93037**

Aleksandrov, A. D. *See* **Petrov, B. N.; et al., 80c:93073**

Andreev, V. P. *See* **Petrov, B. N.; et al., 80c:93073**

Aoyama, Mikio *See* **Kaneda, Masahiro; et al., 80b:93081**

Avramenko, V. P. Conditions for the normal operation of adaptive automatic control systems by technological processes. (Russian) **80a:93095**

Brikman, M. S. (*with* Repnikov, A. D.) Some properties of regularity classes in optimal control problems. (Russian) **80i:93037**

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Doganovskiĭ, S. A. (*with* Egorov, K. V.) A comparison of algorithms for searchless adaptation systems with a model. **80g:93050**

Egorov, K. V. *See* **Doganovskiĭ, S. A., 80g:93050**

Frolov, P. A. *See* **Petrov, B. N.; et al., 80c:93073**

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Kopysov, O. Ju. (*with* Prokopov, B. I.) Identification of parameters of nonlinear systems by adaptive model method. **80c:93072**

Kosikov, V. S. (*with* Pavlov, B. V.) Design of algorithms for searchfree adaptive systems with use of linear models. **80b:93082**

(Krishnan, K. R.) *See* **Jora, B., 80k:93031**

Krišman, Ja. S. On the application of adaptive procedures in the problem of constructing a commutation algorithm for multipurpose control systems. (Russian. Georgian and English summaries) **80e:93075**

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Halanay, A. *See* **Drăgan, Vasile, (80h:93031)**

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Adachi, Masao *See* **Akashi, Hajime; et al., 80d:93043**

Akashi, Hajime (*with* Imai, Hiroyuki) Output deadbeat controllers with stability for discrete-time multivariable linear systems. **80a:93097**

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Bakan, G. M. Multivalued controlled processes with discrete time and control. **80k:93034**

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Bradshaw, A. (*with* Porter, B.) Design of linear multivariable discrete-time tracking systems incorporating error-actuated dynamic controllers. **80a:93098**

(*with* Porter, B.) Design of linear multivariable discrete-time output-feedback regulators. **80b:93087**

Campion, Guy Optimal closed-loop control for nonlinear discrete-time systems. **80j:93079**

Dimitrov, Il. I. *See* **Tzvetanov, I. P.; et al., 80c:93077**

Dimitrova, N. S. *See* **Tzvetanov, I. P.; et al., 80c:93077**

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Hanafy, A. A. R. *See* **Fahmy, Moustafa M., 80f:93044** *and* **Fahmy, Moustafa M., 80j:93080**

Ichikawa, Kunihiko Discrete-time fast regulator with fast observer. **80a:93100**

Imai, Hiroyuki *See* **Akashi, Hajime, 80a:93097** *and* **Akashi, Hajime; et al., 80d:93043**

Jakovlev, V. M. A discrete maximum principle. (Russian) **80b:93088**

On one representation of necessary conditions of optimality for discrete controlled systems. **80m:93052**

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Kobayashi, Toshihiro Initial state determination for distributed parameter systems with discrete-time measurement data. **80j:93081**

Krylov, V. V. Models of discrete systems with infinite-dimensional state space. **80j:93082**

Martin, Jean-Claude E. Dynamic selection of actuators for lumped and distributed parameter systems. **80b:93089**

Miller, B. M. Nonlinear sampled-data control of processes described by ordinary differential equations. II. **80b:93090**

Nakamichi, J. (*with* Washizu, K.) A direct approach using the finite element method for the solution of the linear optimal control problem with a quadratic criterion. **80a:93101**

(Newmann, M. M.) *See* **Fahmy, Moustafa M.; et al., 80j:93080**

Oelschlägel, Dieter (*with* Wilke, Frank) Konvexitätsuntersuchungen im Zusammenhang mit einem Diskretisierungsverfahren für Probleme der optimalen Steuerung. **80b:93039**

(O'Reilly, John) *See* **Fahmy, Moustafa M.; et al., 80j:93080**

Porter, B. *See* **Bradshaw, A., 80a:93098** *and* **Bradshaw, A., 80b:93087**

Scott, C. H. (*with* Jefferson, T. R.) A duality approach to discrete time control theory. **80a:93102**

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Tzvetanov, I. P. (*with* Dimitrova, N. S.; Dimitrov, Il. I.) A method of synthesizing of a coordinated optimal control of a monoresource system with two levels. **80c:93077**

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Wilke, Frank *See* **Oelschlägel, Dieter, 80b:93039**

Willems, J. L. Design of state observers for linear discrete-time systems. **80m:93054**

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(Mitra, Debasis) *See* **Claasen, T. A. C. M., (80d:93054)**

Nachman, David C. *See* **Kertz, Robert P., (80h:49015)**

Porter, B. (*with* D'Azzo, J. J.) Closed-loop eigenstructure assignment by state feedback in multivariable linear systems. **(80a:93065)**

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Alj, Abderrahmane (*with* Haurie, Alain) Description and control of a continuous-time population process. **80m:93055**

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Cook, P. A. On the behaviour of dynamical systems subject to bounded disturbances. **80m:93056**

Grujić, Ljubomir T. (*with* Porter, B.) Continuous-time tracking systems incorporating Lur'e plants with single non-linearities. **80m:93057**

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Šutek, L. (*with* Bednár, P.) A finite sequential automat as the model of a continuous dynamic system. **80i:93040**

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Abramčuk, V. S. (*with* Abramčuk, N. N.) Investigation of generalized problems of uniform approximation of characteristics in the theory of the synthesis of dynamical systems. (Russian. English summary) **80b:93091**

Akulenko, L. D. Control of motion of a nonlinear vibratory system by displacement of the equilibrium point. **80e:93081**

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Aliev, F. A. (*with* Larin, V. B.; Naumenko, K. I.; Suncev, V. N.) ★Оптимизация линейных инвариантных во времени систем управления. (Russian) [Optimization of linear time-invariant control systems] **80d:93044**

Aliev, N. Z. (*with* Musaev, S. R.) A problem of drilling inclined wells. (Russian) **80h:93040a**

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Arkin, V. I. (*with* Krečetov, L. I.) Stochastic Lagrange multipliers in control problems and economic dynamics. (Russian) **80e:93082**

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Campbell, Stephen L. On a singularly perturbed autonomous linear control problem. **80b:93094**

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Džoldasbekov, U. A. (*with* Kazyhanov, H. R.; Kangužin, B. E.) Application of methods for the theory of optimal control for the analysis and synthesis of mechanisms. (Russian. Bulgarian and English summaries) **80a:93108**

Egorov, Ju. V. (*with* Kislyakov, S.) Definition of renewal of functionals being optimized in analytical construction problems. **80b:93104**

Epstein, Larry G. The Le Chatelier principle in optimal control problems. **80c:93079**

Evseenko, T. P. Solution of a problem of synthesis of optimal scanning control. (Russian) **80e:93084**

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Faurre, Pierre (*with* Clerget, Michel; Germain, François) ★Opérateurs rationnels positifs. **80h:93041**

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Iwazumi, Tetsuo (*with* Kando, Hisashi; Ukai, Hiroyuki) Suboptimal control of singularly perturbed distributed parameter systems. (Japanese. English summary) **80a:93111**

Jakovlev, O. S. Optimization of nonlinear feedback laws. (Russian) **80a:93112**

Kando, Hisashi *See* **Iwazumi, Tetsuo; et al.**, **80a:93111**

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Karaeva, È. M. Optimization of the dynamics of well drilling in gas fields, with simultaneous choice of well shaft diameter. (Russian) **80h:93042**

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Koivo, Heikki N. (*with* Alford, R.) Optimal output-feedback controllers for linear time-delay systems. **80e:93086**

Kouikov, N. I. ★Модели управления научными исследованиями и разработками. (Russian) [Models for planning scientific research and development] **80d:93046**

Konstantinov, M. M. (*with* Petkov, Petko Hr.; Hristov, Nikolaĭ D.) Sequential canonical form and the synthesis of linear control systems. I. (Bulgarian. Russian and English summaries) **80d:93047**

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Kresner, Arthur J. A note on commutative bilinear optimal control. **80e:93087**

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93D99 None of the above, but in this section

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Prasad, Shyama Charan *See* **Jha, Dhirendra Kumar, (80i:94018)**
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Rothblum, Uriel G. Solving stopping stochastic games by maximizing a linear function subject to quadratic constraints. **80m:93078**
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Sperling, Lutz Über die Untersuchung diskreter, nichtlinearer, durch weisses Rauschen erregter Systeme mit Hilfe bestimmter linearer Quasimomentengleichungen. **80d:93064**
Wedig, Walter Moments and probability densities of parametrically excited systems and continuous systems. **80c:93112**

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Ahmadi, Goodarz Stability of stochastic linear difference-differential equations. **80d:93065**
Bagchi, Arunabha (*with* Olsder, Geert Jan) A stochastic differential game as control problem with infinite-dimensional state space. **80e:93108**
Baĭsakov, I. B. A game problem with incomplete information. (Russian. Kazakh summary) **80a:93147**
Başar, Tamer Stochastic stagewise Stackelberg strategies for linear quadratic systems. **80g:93069**
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Ėĭdel'man, S. D. (*with* Ezrohī, O. Ĭ.) Games of stochastic automata. (Russian. English summary) **(80i:68043)**
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Vagin, V. N. (*with* Ivkin, S. A.) Finding an optimal trajectory for a sensor where the target distribution is probabilistic. **(80d:90099)**
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93E10 Estimation and detection

Aguilar-Martin, J. *See* **Salut, G.; et al., 80m:93085**
Ahmad, M. O. (*with* Reddy, Harnatha C.; Ramachandran, V.; Swamy, M. N. S.) Cascade synthesis of a class of multivariable positive real functions. **80a:93148**
Aşkar, Murat (*with* Derin, Haluk; Yurtseven, H. Öner) On joint detection and estimation of Gauss-Markov processes. **80m:93080**
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Baram, Yoram (*with* Sandell, Nils R., Jr.) Consistent estimation on finite parameter sets with application to linear systems identification. **80a:93149**
Barker, H. A. (*with* Davy, R. W.) Measurement of second-order Volterra kernels using pseudorandom ternary signals. **80a:93150**
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Brodeau, F. (*with* Le Breton, A.) Identification de paramètres pour un système excité par des bruits gaussien et poissonien. (English summary) **80f:93069**
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Bublik, B. M. (*with* Kiričenko, M. F.; Nakonečnīĭ, O. G.) Regulators and minimax filters for systems with distributed parameters. (Russian) **80c:93114**
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Chan, I Kuang *See* **Lin, Chia Hsün, 80i:93055**
Chang, Sheldon S. L. Digital linear processor theory and optimum multidimensional data estimation. **80f:93070**

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Kazakov, I. E. Estimation and identification in systems with random structure. **80m:93081**

Kiričenko, M. F. (*with* Klimenko, V. G.) Convergence of the algorithms of optimal estimation in systems with incomplete information. (Russian. English summary) **80d:93068**

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Kiričenko, N. F. (*with* Nakonečnīĭ, O. G.; Navrods'kīĭ, V. O.) Minimax recurrent estimates of the parameters of dynamical systems. (Russian. English summary) **80b:93137**

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Kortüm, Willi Computational techniques in optimal state-estimation—a tutorial review. **80b:93138**

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Królikowski, Andrzej Synthesis of input sequence for linear single-input single-output parameter identification. **80d:93069**

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Marcus, Steven I. (*with* Willsky, Alan S.; Hsu, Kai) The use of harmonic analysis in suboptimal estimator design. **80a:93154**

Optimal nonlinear estimation for a class of discrete-time stochastic systems. **80c:93115**

Medvedev, G. A. Adaptive estimation based on realizations of stochastic processes and fields. **80c:93116**

(*with* Hackevič, G. A.) Recursive estimates from correlated observations. **80m:93084**

Mendel, J. M. (*with* Washburn, H. D.) Multistage estimation of bias states in linear systems. **80f:93073**

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Nakamori, Seiichi (*with* Sugisaka, Masanori) Design of linear predictor by covariance information. (Japanese. English summary) **80e:93113**

(*with* Sugisaka, Masanori) Derivation of estimation equation by the covariance information in the two-dimensional distributed system. (Japanese. English summary) **80c:93118**

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(*with* Grigorov, A. V.) Minimax filtration for systems with noise in the model. (Russian. English summary) **80e:93114**

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Niewiadomski, Tadeusz Contribution to the theory of experimental real-time spectrum analysis. (Polish and Russian summaries) **80b:93139**

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Omatu, Sigeru (*with* Soeda, Takashi) Optimal estimation problems for a linear distributed parameter system. **80b:93140**

(*with* Ohe, Syunichiro; Soeda, Takashi) Fixed-lag smoothing estimator for a linear distributed parameter system. **80k:93051**

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94–02 Advanced exposition (research surveys, monographs, etc.)

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Principles of the construction of information disseminating devices ★Принципы построения устройств распределения информации. (Russian) [Principles of the construction of information disseminating devices] **80a:94002**
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Special issue:
  Automatic analog fault diagnosis ★Special issue on automatic analog fault diagnosis. **80e:94002**
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  Circuits and Systems ★1978 IEEE International Symposium on Circuits and Systems Proceedings. **(80a:94041)**
Information theory *See* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80a:62005)** *and* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80k:60004)**
Mathematical model'ng and the theory of electrical circuits ★Математическое моделирование и теория электрических цепей. Вып. 16. (Russian) [Mathematical modeling and the theory of electrical circuits. No. 16] **(80k:94033a)**
Meeting:
  European, Statisticians *See* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80a:62005)**
New York *See* **IEEE Symposium: Circuits and Systems, (80a:94041)**
Prague *See* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80a:62005)** *and* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80k:60004)**
Proceedings:
  Annual Southeastern Symposium on System Theory ★Proceedings of the Eleventh Annual Southeastern Symposium on System Theory. **(80j:93007)**
Random processes *See* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80a:62005)** *and* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80k:60004)**
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  Arbeitsseminar auf dem Gebiete der Diskreten Mathematik *See* **Tagung: Diskrete Mathematik und ihre Anwendungen in der Mathematischen Kybernetik, (80j:68006)**
Statistical decision functions *See* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80a:62005)** *and* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80k:60004)**
Symposium:
  Southeastern, System Theory *See* **Proceedings: Annual Southeastern Symposium on System Theory, (80j:93007)**
Systems *See* **Current topics in cybernetics and systems, (80a:68001)**
Systems theory *See* **Proceedings: Annual Southeastern Symposium on System Theory, (80j:93007)**
Tagung:
  Diskrete Mathematik und ihre Anwendungen in der Mathematischen Kybernetik ★Tagung: Diskrete Mathematik und ihre Anwendungen in der mathematischen Kybernetik. **(80j:68006)**
Transactions:
  European Meeting of Statisticians *See* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80a:62005)**
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  ★Transactions of the Eighth Prague Conference on Information Theory, Statistical Decision Functions, Random Processes. Vol. C. **(80k:60004)**

94Axx Communication, information

Secondary classifications:

Conference:
  Prague Information Theory, Statistical Decision Functions, Random Processes *See* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80d:62004a)** *and* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80d:62004b)**
Information theory *See* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80d:62004a)** *and* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80d:62004b)**
Prague *See* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80d:62004a)** *and* **Transactions: Prague Conference on Information Theory, Statistical Decision Functions, Random Processes, (80d:62004b)**
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Statistical decision functions *See* **Transactions: Prague Conference on Information**

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Abramčuk, V. S. Uniform approximation of phase and transition functions. (Russian) **80g:94001**

Aggarwal, J. K. *See* **Chang, Hyokang. 80h:94001**

Anderson, R. R. (*with* Foschini, G. J.; Gopinath, B.) A queuing model for a hybrid data multiplexer. **80k:94002**

Bose, N. K. (*with* Prabhu, K. A.) Two-dimensional discrete Hilbert transform and computational complexity aspects in its implementation. **80k:94003**

Bucklew, James A. (*with* Gallagher, Neal C., Jr.) Quantization schemes for bivariate Gaussian random variables. **80f:94002**

Butzer, P. L. (*with* Splettstösser, W.) Sampling principle for duration-limited signals and dyadic Walsh analysis. **80i:94001**

Cesini, G. (*with* Guattari, G.; Lucarini, G.; Palma, C.) An iterative method for restoring noisy images. (French and German summaries) **80a:94003**

Chang, Hyokang (*with* Aggarwal, J. K.) Design of two-dimensional semicausal recursive filters. **80h:94001**

Chang, Sheldon S. L. Theory of linear processors and its applications. **80m:94001**

Cheng, M. T. (*with* Shen, Xie Chang; Zhou, Min Qiang; Zhang, Xu Ding) Finite Walsh transform in $\mathbf{R}^n$ and applications to picture bandwidth compression. (Chinese. English summary) **80g:94002**

Cheng, Qian Sheng (*with* Xie, Zhong Jie) Optimum high-resolution window functions for spectral estimates. (Chinese) **80k:94004**

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Heading, John A note on necessary conditions for phase memory. **80m:94002**

Helstrom, Carl W. Optimum quantum decision between a pure and a mixed state with application to detection of TCS signals. **80f:94003**

Hinich, Melvin J. Quadratic multiplexing—a new method for secure communication. **80k:94005**

Kazakos, Dimitri The Bhattacharyya distance and detection between Markov chains. **80b:94002**

(*with* Papantoni-Kazakos, P.) Sequential detection between Poisson processes. **80k:94006**

Kenefic, R. (*with* Nuttall, A.; Weiner, C.) A Volterra functional expansion for the logarithm of the likelihood ratio for detection of a memoryless nonlinear functional of a random process in Gaussian white noise. **80g:94003**

Knab, John J. Interpolation of band-limited functions using the approximate prolate series. **80m:94003**

Kul'man, N. K. (*with* Hametov, V. M.) Optimum filtration for the case of indirect observation of a diffusion process with a delayed argument. **80g:94004**

Lucarini, G. *See* **Cesini, G.; et al., 80a:94003**

Machado Mata, Jesus A. *See* **Shapiro, Jeffrey H.; et al., 80f:94005b**

Malozemov, V. N. The synthesis problem for a multipole electrical filter. (Russian) **80g:94005**

Marton, Katalin A coding theorem for the discrete memoryless broadcast channel. **80e:94003**

Masunaga, Yoshifumi A probabilistic automaton model of the NRM, HDX HDLC procedure. **80a:94004**

Mazo, J. E. Some theoretical observations on spread-spectrum communications. **80h:94002**

On the independence theory of equalizer convergence. **80k:94007**

Nowosad, Pedro Singular nonlinear problems arising in communication. **80g:94006**

Nussbaumer, Henri J. Fast polynomial transform algorithms for digital convolution. **80m:94004**

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Palma, C. *See* **Cesini, G.; et al., 80a:94003**

Papantoni-Kazakos, P. *See* **Kazakos, Dimitri, 80k:94006**

Prabhu, K. A. *See* **Bose, N. K., 80k:94003**

Prouza, Ludvik On recursive filters inverse to finite sequences in the minimum mean square sense. **80g:94007**

Sarwate, Dilip V. *See* **Shedd, Dennis A., 80b:94003**

Shapiro, Jeffrey H. (*with* Yuen, Horace P.; Machado Mata, Jesus A.) Optical communication with two-photon coherent states. II. Photoemissive detection and structured receiver performance. **80f:94005b**

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Shedd, Dennis A. (*with* Sarwate, Dilip V.) Construction of sequences with good correlation properties. **80b:94003**

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Shenoy, Varadaraj P. *See* **Taylor, Fred J., 80f:94004**

Skrypnik, G. I. A recurrence procedure for detecting nonuniqueness of phase measurements. (Russian) **80a:94005**

Splettstösser, W. *See* **Butzer, P. L., 80i:94001**

Taylor, Fred J. (*with* Shenoy, Varadaraj P.) On the Fourier transform of sequency limited signals with applications to delta modulation and medicine. **80f:94004**

Weiner, C. *See* **Kenefic, R.; et al., 80g:94003**

Wyner, Aaron D. An analog scrambling scheme which does not expand bandwidth. I. Discrete time. **80i:94002**

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Youla, Dante C. Generalized image restoration by the method of alternating orthogonal projections. **80c:94002**

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Zhang, Xu Ding *See* **Cheng, M. T.; et al., 80g:94002**

Zhou, Min Qiang *See* **Cheng, M. T.; et al., 80g:94002**

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Ackroyd, Martin H. Computing the waiting time distribution for the $G/G/1$ queue by signal processing methods. **(80k:68022)**

Arambepola, B. (*with* Rayner, P. J. W.) Multidimensional fast Fourier transform algorithm. **(80e:68069)**

Baker, Charles R. Relations between mutual information, strong equivalence, signal-to-noise ratio, and signal sample path properties. **(80g:60040b)**

Mutual information, strong equivalence, and signal sample path properties for Gaussian processes. **(80g:60040a)**

Cappellini, V. (*with* Constantinides, A. G.; Emiliani, P.) ★Digital filters and their applications. **(80g:93077)**

(Cartianu, Gh.) *See* **Digital processing and transmission of data and control of processes by means of computers, (80c:90113a)**

(Chen, C. H.) *See* **Pattern recognition and signal processing, (80j:68076)**

Constantinides, A. G. *See* **Cappellini, V.; et al., (80g:93077)**

Davis, M. H. A. A direct proof of innovations/observations equivalence for Gaussian processes. **(80j:60057)**

Draganov, G. Algorithms of the fast Fourier transform. (Bulgarian. Russian and English summaries) **(80g:65137)**

Emiliani, P. *See* **Cappellini, V.; et al., (80g:93077)**

Eshleman, Linda R. *See* **Lo, James Ting Ho, (80h:60058)**

Farag, Raouf F. H. An information theoretic approach to image partitioning. **(80m:68078)**

Filinov, V. N. *See* **Medvedev, V. A.; et al., (80d:60057)**

Kalinenko, A. N. (*with* Tvorogov, S. D.) The change of statistics of radiation in an optical communication channel. (Russian) **(80f:82054)**

Kanada, Hajime Theoretical consideration of the digital simulation containing unknown states. **(80c:68068)**

Kovanic, Pavel On the pseudoinverse of a sum of symmetric matrices with applications to estimation. **(80m:65035)**

Lo, James Ting Ho (*with* Eshleman, Linda R.) Exponential Fourier densities on SO(3) and optimal estimation and detection for rotational processes. **(80h:60058)**

Mascarenhas, N. D. A. (*with* Prado, L. O. C.) A Bayesian approach to edge detection in images. **(80m:68080)**

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Mier Muth, Alberto M. (*with* Willsky, Alan S.) A sequential method for spline approximation with variable knots. **(80c:65033)**

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(Nicolau, Edmond) *See* **Digital processing and transmission of data and control of processes by means of computers, (80c:90113a)**

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Prado, L. O. C. *See* **Mascarenhas, N. D. A., (80m:68080)**

Rayner, P. J. W. *See* **Arambepola, B., (80e:68069)**

Reed, Irving S. (*with* Truong, T. K.; Miller, Robert L.) Fast algorithm for computing a primitive 2^{p+1}pth root of unity in $\mathrm{GF}[(2^p-1)^2]$. **(80c:68076)**

(*with* Truong, T. K.; Miller, Robert L.) Simple method for computing elements of order $2^k n$, where $n|2^{p-1}-1$ and $2<k<p+1$, in $\mathrm{GF}[(2^p-1)^2]$. **(80c:68077)**

(*with* Truong, T. K.) A new hybrid algorithm for computing a fast discrete Fourier transform. **(80e:68078)**

Richardson, John M. Target seeking in the presence of nonstationary Gaussian fluctuations. **(80e:68224)**

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Siegman, A. E. Simplified derivation of the Fokker-Planck equation. **(80b:82009)**

Stepanov, B. M. *See* **Medvedev, V. A.; et al., (80d:60057)**

Tal, Jacob *See* **Yeh, Yeru; et al., (80e:93124)**

Truong, T. K. *See* **Reed, Irving S.; et al., (80e:68076); Reed, Irving S.; et al., (80e:68077)** *and* **Reed, Irving S., (80e:68078)**

Tvorogov, S. D. *See* **Kalinenko, A. N., (80f:82054)**

Willsky, Alan S. *See* **Mier Muth, Alberto M., (80c:65033)**

Winograd, S. On the multiplicative complexity of the discrete Fourier transform. **(80e:68080)**

Yeh, Yeru (*with* Rushforth, Craig K.; Tal, Jacob) A state-space formulation of the causal linear prefiltering problem in sampled-data systems. **(80e:93124)**

Digital processing and transmission of data and control of processes by means of computers ★Prelucrarea şi transmiterea numerică a datelor şi conducerea proceselor cu ajutorul calculatoarelor. (Romanian) [Digital processing and transmission of data and control of processes by means of computers] **(80c:90113a)**

NATO Advanced Study Institute:

Pattern Recognition and Signal Processing *See* **Pattern recognition and signal processing, (80j:68076)**

Paris *See* **Pattern recognition and signal processing, (80j:68076)**

Pattern recognition and signal processing ★Pattern recognition and signal processing. **(80j:68076)**

Signal processing *See* **Pattern recognition and signal processing, (80j:68076)**

94A11 Application of orthogonal functions in communication

Artem'jev, M. Ju. (*with* Gaev, G. P.; Krenkel', T. È.; Skotnikov, A. P.) An algorithm for forming symmetric systems of Walsh functions. **80m:94005**

Butz, Arthur R. FFT length in digital filtering. **80k:94008**

Cavanilles, Jean-François Une application de la connaissance des fonctions extrémales à la recherche du diamètre ultime d'une tache de diffraction. (English summary) **80m:94006**

Corsini, Paolo (*with* Frosini, Graziano) Properties of the multidimensional generalized discrete Fourier transform. **80m:94007**

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Gaev, G. P. *See* **Scarbata, G., 80k:94006** *and* **Artem'jev, M. Ju.; et al., 80m:94005**

Gogia, N. D. The Hadamard transform and transform displacement. (Russian) **80g:94008**

Karivaratharajan, P. (*with* Reddy, Harnatha C.; Swamy, M. N. S.; Ramachandran, V.) Generation of two-dimensional digital functions without nonessential singularities of the second kind. **80m:94008**

Krenkel', T. È. *See* **Artem'jev, M. Ju.; et al., 80m:94005**

Kunz, Henry O. On the equivalence between one-dimensional discrete Walsh-Hadamard and multidimensional discrete Fourier transforms. **80g:94009**

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Mehta, F. C. A general sampling expansion. **80b:94003**

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Reddy, Harnatha C. *See* **Karivaratharajan, P.; et al., 80m:94008**

Reed, Irving S. (*with* Truong, T. K.) Fast Mersenne-prime transforms for digital filtering. **80g:94010**

Rice, Bart Some good fields and rings for computing number-theoretic transforms. **80h:94005**

Scarbata, G. (*with* Gaev, G. P.) Die Erzeugung von Walshfunktionen unter Ausnutzung ihres Zusammenhangs mit dem Graykode. **80k:94006**

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Secondary classifications:

Cheng, M. T. (*with* Shen, Xie Chang; Zhou, Min Qiang; Zhang, Xu Ding) Finite Walsh transform in R^n and applications to picture bandwidth compression. (Chinese. English summary) **(80g:94002)**

Despain, Alvin M. Very fast Fourier transform algorithms hardware for implementation. **(80b:68026)**

Knab, John J. Interpolation of band-limited functions using the approximate prolate series. **(80m:94003)**

Moraga, Claudio Logical design by means of exchange of vertices. (Spanish. English summary) **(80i:94021)**

Papadimitriou, Christos H. Optimality of the fast Fourier transform. **(80b:68057)**

Parker, D. Stott, Jr. Notes on shuffle/exchange-type switching networks. **(80m:94097)**

Shen, Xie Chang *See* **Cheng, M. T.; et al., (80g:94002)**

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94A12 Characterization of signals

Alexander, Winser E. (*with* Pruess, Steven A.) Stability analysis of two-dimensional digital recursive filters. **80m:94009**

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Bellini, Sandro (*with* Piacentini, Maurizio; Cafforio, Ciro; Rocca, Fabio) Compensation of tissue absorption in emission tomography. **80h:94007**

Bennett, R. (*with* Attikiouzel, J.; Holt, A. G. J.) An approximation technique for the design of recursive digital and continuous filters with and without fixed zeros in the stop band. **80c:94004**

van den Bos, A. (*with* Krol, R. G.) Synthesis of discrete-interval binary signals with specified Fourier amplitude spectra. **80m:94010**

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Bouachache, Boualem (*with* Escudié, Bernard; Flandrin, Patrick; Gréa, Jean) Sur une condition nécessaire et suffisante de positivité de la représentation conjointe en temps et fréquence des signaux d'énergie finie. (English summary) **80c:94005**

Buhonin, Ju. S. (*with* Šliševskiĭ, V. B.) A method of coding incoherent optical signals. (Russian) **80g:94011**

Cadzow, James A. An extrapolation procedure for band-limited signals. **80b:94006**

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Davisson, Lee D. *See* **Kazakos, Dimitri, 80k:94009**

El Agizi, N. G. (*with* Fahmy, Moustafa M.) Sufficient conditions for the nonexistence of limit cycles in two-dimensional digital filters. **80h:94008**

Emel'janov, S. V. Sliding mode application in the problems of multifold optimal differentiation. (Russian. English summary) **80m:94012**

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Fettweis, Alfred Suppression of parasitic oscillations in multidimensional wave digital filters. **80a:94006**

Fishman, M. M. Distribution of the duration of a sequential procedure in the case of nonstationary correlated observations. **80h:94009**

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Frosini, Graziano (*with* Viterbo, Francesco M.) An algorithm for evaluating the frequency of a rotating vector. **80g:94012**

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Gurin, L. S. (*with* Coĭ, K. A.) A multilevel system of algorithms for the detection and separation of signals on a noise screen. (Russian) **80e:94004**

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Huang, Chao H. (*with* Taylor, Fred J.) A memory compression scheme for modular arithmetic. **80j:94002**

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Kanter, Irving Three theorems on the moments of the monopulse ratio. **80a:94007**

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Konoplev, A. V. (*with* Kušnir, A. F.) Asymptotically optimal spectral algorithms for detecting random signals on a noise background. **80j:94004**

Koren, Israel (*with* Sadeh, Eitan) A new approach to the evaluation of the reliability of digital systems. **80m:94014**

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Kuk, Ju. B. A generalization of the Neyman-Pearson lemma in the theory of signal identification. (Russian. English summary) **80d:94001**

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Mohanty, N. C. Binary and ternary signals with small cross correlations. **80g:94015**

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Parl, Steen A new method of calculating the generalized Q function. **80k:94011**

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Polydoros, Andreas D. (*with* Protonotarios, Emmanuel N.) Digital interpolation of stochastic signals. **80j:94005**

Poor, H. Vincent (*with* Thomas, John B.) Memoryless discrete-time detection of a constant signal in m-dependent noise. **80d:94002**

(*with* Mami, M.; Thomas, John B.) On robust detection of discrete-time stochastic signals. **80m:94017**

Prokof'ev, V. N. The maximin solution of the problem of detection with a vector informative parameter. **80i:94003**

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Prouza, Ludvík On a detection method for known finite sequences. **80c:94006**

Pruess, Steven A. *See* **Alexander, Winser E., 80m:94009**

Rickard, John T. The zero-crossing interval statistics of the smoothed random telegraph signal. **80g:94017**

Rix, Hervé (*with* Malengé, Jean-Pierre) Detecting small variations in shape. **80m:94018**

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Sendaula, Musoke A state-space realization algorithm for two-dimensional recursive digital filters. **80d:94003**

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94A14 Modulation and demodulation

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94A15 Information theory, general [See also 62B10.]

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Steele, J. Michael *See* **Boyd, David W., (80i:60010)**
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94A17 Measures of information, entropy

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Guiaşu, Silviu (*with* Reischer, Corina) Some remarks on entropic distance, entropic measure of connexion and Hamming distance. (French summary) **80m:94026**
Gupta, H. C. *See* **Taneja, Inder Jeet, 80k:94021**
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Mastrangelo-Dehen, Michèle (*with* Mastrangelo, Victor) Entropie, paramètres thermodynamiques, information associée aux événements et aux expériences. **80m:94028**
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Picard, Claude-François Une théorie de l'expérimentation: les modèles de fort dépendance. (Italian summary) **80i:94008**
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94A24 Coding theorems (Shannon theory)

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Blom, Rolf J. Bounds on key equivocation for simple substitution ciphers. **(80b:94013)**

Brassard, Gilles A note on the complexity of cryptography. **(80b:68051)**

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Kadota, T. T. Sequential operation of communication channels and the capacity using variable-length codes. **(80c:94012)**

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McEliece, Robert J. (*with* Rodemich, E. R.; Rumsey, H. C., Jr.) The Lovász bound and some generalizations. **(80a:05168)**

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Cheng, M. C. On graphical construction of optimal irreducible codes. **80e:94010**

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Abstract alphabet distortion-rate functions. **80h:94017**

Evtihiev, N. N. (*with* Sandler, E. A.) Message-source models and their applications. **80h:94018**

Franaszek, P. A. On future-dependent block coding for input-restricted channels. **80h:94019**

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Estimation of a convex real parameter of an unknown information source. **80k:94025**

Variable-length source coding with a cost depending only on the code word length. **80i:94011**

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Sharma, Bhu Dev (*with* Raina, Neelam) A coding theorem for multiple access channels using a maximum likelihood list decoding scheme. **80j:94016**

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Vajda, Igor Universal coding versus specific coding. **80i:94012**

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Gubareni, N. M. *See* **Sin'kov, M. V., (80j:10001)**

Khanna, Ravinder Kumar *See* **Sharma, Bhu Dev, (80k:05003)**

(Puhov, G. È.) *See* **Sin'kov, M. V.; et al., (80j:10001)**

Sharma, Bhu Dev (*with* Khanna, Ravinder Kumar) On m-ary Gray codes. **(80k:05003)**

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94A34 Distortion theory

Avgeris, T. G. (*with* Tzannes, N. S.) On reconstituting a process from its quantized form in the presence of noise. **80h:94022**

Brown, J. L., Jr. Crosscorrelation between linearly and nonlinearly distorted versions of a given signal. **80g:94045**

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Rickard, John T. New fidelity criteria for discrete-time source encoding. **80g:94046**

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Binia, Jacob On the capacity of certain additive non-Gaussian channels. **80g:94047**
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(*with* Körner, János) Reliability function of a discrete memoryless channel at rates above capacity. **80e:94011**
El Gamal, Abbas A. The capacity of a class of broadcast channels. **80e:94012**
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Han, Te Sun The capacity region of general multiple-access channel with certain correlated sources. **80e:94013**
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(*with* Has'minskiĭ, R. Z.) Channel capacity with a constraint on the smoothness of the transmitted signal. **80j:94019**
Ihara, Shunsuke On the capacity of the discrete time Gaussian channel with feedback. **80m:94041**
Kadota, T. T. Sequential operation of communication channels and the capacity using variable-length codes. **80c:94012**
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Vajda, Igor Adaptive Gaussian detection without a priori symbol synchronization. (Russian summary) **80m:94045**
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Varaiya, Pravin (*with* Walrand, Jean) Decentralized control in packet switched satellite communication. **(80m:93097)**
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Zigangirov, K. Sh. Optimum zero rate data transmission through binary symmetric channel with feedback. **(80c:93025)**

94A50 Theory of questionnaires

Bouchon, Bernadette Quelques résultats de la théorie des questionnaires réalisables. (English summary) **80e:94015**
Crolotte, Alain (*with* Pearl, Judea) Elasticity conditions for storage versus error exchange in question-answering systems. **80m:94046**
Garg, Asha *See* **Sharma, Bhu Dev, 80g:94051** *and* **Sharma, Bhu Dev, 80m:94047**
Pearl, Judea *See* **Crolotte, Alain, 80m:94046**
Sharma, Bhu Dev (*with* Garg, Asha) Nonadditive measures of average charge for heterogeneous questionnaires. **80g:94051**
(*with* Garg, Asha) Characterization and lower bounds for additive charges for heterogeneous questionnaires. (French summary) **80m:94047**

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Levine, A. *See* **Haaland, P.; et al., (80g:94027)**

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Przesmycki, Olgierd Series for calculating more precise values of the constant modular-elliptic function $q = q(k)$ as applied to electric filters. (Polish. English, French, German and Russian summaries) **80m:94048**
Sgarro, Andrea Probability exponents of the classes of certain partitions relative to discrete-parameter stochastic processes. (Italian summary) **80m:94049**

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Davida, George I. *See* **Kam, John B., (80b:68031)**
Denning, Dorothy E. Secure personal computing in an insecure network. **(80d:68010)**
Horibe, Yasuichi Weight sequences and individual path length in a balanced binary tree. **(80m:68058)**
Kailath, Thomas *See* **Morf, Martin; et al., (80e:62066)**
Kam, John B. (*with* Davida, George I.) A structured design of substitution-permutation encryption network. **(80b:68031)**
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Lee, Daniel T. L. *See* **Morf, Martin; et al., (80e:62066)**
Morf, Martin (*with* Vieira, Augusto C.; Lee, Daniel T. L.; Kailath, Thomas) Recursive multichannel maximum entropy spectral estimation. **(80e:62066)**
Nurlybaev, A. N. The neighborhood of the element in the problem of overlapping Cartesian products. (Russian) **(80d:05007)**
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94Bxx Algebraic theory of error-correcting codes

Harari, S. Théorie du codage algébrique. (English summary) **80b:94022**
Coding theory *See* **Vorträge: Codierungstheorie und Theorie der Suchalgorithmen, 80d:94018**
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Seminar:
Codierungstheorie und Theorie der Suchalgorithmen *See* **Vorträge: Codierungstheorie und Theorie der Suchalgorithmen, 80d:94018**
Vorträge:
Codierungstheorie und Theorie der Suchalgorithmen ★Vorträge aus dem Problemseminar Codierungstheorie und Theorie der Suchalgorithmen. **80d:94018**
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Blake, Ian F. Combinatorial designs formed by patterns of subsets provide insight into the existence of useful codes. **(80f:05009)**
Hill, Raymond Caps and codes. **(80a:05048)**
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Parhami, Behrooz *See* **Ashjaee, M. J., (80b:68006)**
Reed, Irving S. (*with* Truong, T. K.) Fast Mersenne-prime transforms for digital filtering. **(80g:94010)**
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Spencer, Joel H. Nonconstructive methods in discrete mathematics. **(80f:05001)**

Truong, T. K. *See* **Reed, Irving S., (80g:94010)**
Brussels *See* **Colloque: Mathématiques Discrètes: Codes et Hypergraphes, (80f:05002)**
Codes *See* **Colloque: Mathématiques Discrètes: Codes et Hypergraphes, (80f:05002)**
Colloque:
Mathématiques Discrètes: Codes et Hypergraphes ★Colloque Mathématiques Discrètes: Codes et Hypergraphes. **(80f:05002)**
Discrete mathematics *See* **Colloque: Mathématiques Discrètes: Codes et Hypergraphes, (80f:05002)**
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94B05 Linear codes, general

Aggarwal, R. S. *See* **Sharma, Bhu Dev, 80f:94014**
Berman, S. D. (*with* Gruško, I. I.) Code parameters of principal ideals of group algebra of group $(2, 2, \cdots, 2)$ over field of characteristic 2. **80j:94022**
Blahut, R. E. Transform techniques for error control codes. **80f:94014**
Bu, Tor Coding theory and betting pools. (Norwegian. English summary) **80m:94050**
Camion, P. Dix années de recherche sur les codes autoduaux. (English summary) **80b:94025**
Caprihan, A. (*with* Srivastava, J. N.) Some new properties of Srivastava codes. **80g:94052**
Conway, John H. (*with* Pless, Vera; Sloane, Neil J. A.) Self-dual codes over GF(3) and GF(4) of length not exceeding 16. **80h:94026**
Dodunekov, S. M. On the connection between GBCH and Goppa codes. **80j:94023**
Dumer, I. I. (*with* Zinov'ev, V. A.) Some new maximal codes over GF(4). **80g:94053**
Gel'fand, S. I. *See* **Vvedenskaja, N. D., 80j:94026**
Goel, S. N. Codes correcting random errors of limited intensity. **80f:94015**
Gruško, I. I. *See* **Berman, S. D., 80j:94022**
Gupta, Sat Narain (*with* Malhotra, A. M.) Blockwise error-location codes. **80j:94024**
Hashim, A. Improvement on Varshamov-Gilbert lower bound on minimum Hamming distance of linear codes. **80g:94054**
Indik, R. (*with* Pless, Vera) Code graphs. **80a:94029**
Kasai, Takeo (*with* Sugiyama, Yasuo) On a (21, 11, 6) binary code. **80b:94023**
Karpovsky, Mark G. On the weight distribution of binary linear codes. **80k:94026**
Kiplidze, Z. Š. (*with* Klimiašvili, M. A.; Kobašvili, T. V.; Urumov, I. O.) Weighted codes with basis $q = 7$. (Russian) **80m:94051**
Klimiašvili, M. A. *See* **Kiplidze, Z. Š.; et al., 80m:94051**
Kobašvili, T. V. *See* **Kiplidze, Z. Š.; et al., 80m:94051**
Kračkovskiĭ, V. Ju. Complexity of constructing codes with specified correction properties. **80j:94025**
Lindner, Rolf (*with* Staiger, Ludwig) Zur Theorie der sequentiellen Codierungen. **80m:94052**
MacWilliams, F. Jessie (*with* Odlyzko, Andrew M.; Sloane, Neil J. A.; Ward, Harold N.) Self-dual codes over GF(4). **80f:94016**
Malhotra, A. M. *See* **Gupta, Sat Narain, 80j:94024**
Miller, Robert L. Minimal codes in abelian group algebras. **80f:94017**
Odlyzko, Andrew M. *See* **MacWilliams, F. Jessie; et al., 80f:94016**
Pless, Vera *See* **Indik, R., 80a:94029** *and* **Conway, John H.; et al., 80h:94026**
Poli, Alain Une famille de codes généralisant les codes minimaux (cas semi-simple ou modulaire). **80m:94053**
Rodger, Christopher A. On the complete weight enumerator of certain linear codes over GF(3). **80h:94027**
Sagalovič, Ju. L. Concatenated codes of the states of an automaton. (Russian) **80g:94055**
Satyanarayana, Chandra Lee metric codes over integer residue rings. **80h:94028**
Sharma, Bhu Dev (*with* Aggarwal, R. S.) Blockwised Lee error-correcting codes. **80f:94014**
Sloane, Neil J. A. *See* **MacWilliams, F. Jessie; et al., 80f:94016** *and* **Conway, John H.; et al., 80h:94026**
Snapper, Ernst Quadratic spaces over finite fields and codes. **80e:94016**
Srivastava, J. N. *See* **Caprihan, A., 80g:94052**
Staiger, Ludwig *See* **Lindner, Rolf, 80m:94052**
Sugiyama, Yasuo *See* **Kasai, Takeo, 80b:94023**
Tzeng, Kenneth K. (*with* Yu, Chie Y.) Characterization theorems for extending Goppa codes to cyclic codes. **80f:94018**
Urumov, I. O. *See* **Kiplidze, Z. Š.; et al., 80m:94051**
Viry, Guy Factorisation des polynômes à plusieurs variables à coefficients entiers. **80g:94056**
Vvedenskaja, N. D. (*with* Gel'fand, S. I.) Systematic codes that can be realized by simple circuits. **80j:94026**
Ward, Harold N. *See* **MacWilliams, F. Jessie; et al., 80f:94016**
Wasan, Siri Krishan Burst distribution of a coset of a linear code. **80m:94054**
Yu, Chie Y. *See* **Tzeng, Kenneth K., 80f:94018**
Zinov'ev, V. A. *See* **Dumer, I. I., 80g:94053**

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Asmus, E. F., Jr. (*with* Salwach, Chester J.) The (16, 6, 2) designs. **(80g:05014b)**
Barnes, Earl R. *See* **Leung-Yan-Cheong, Sik K.; et al., (80b:94031)**
Fraser, Owen H. (*with* Gordon, Basil) Solution to a problem of A. D. Sands. **(80e:20068)**
Friedman, Daniel U. *See* **Leung-Yan-Cheong, Sik K.; et al., (80b:94031)**
Gordon, Basil *See* **Fraser, Owen H., (80e:20068)**
Leung-Yan-Cheong, Sik K. (*with* Barnes, Earl R.; Friedman, Daniel U.) On some properties of the undetected error probability of linear codes. **(80b:94031)**
Lyle, Bill A linear-algebra problem from algebraic coding theory. **(80a:05013)**
Mezzaroba, Joseph A. *See* **Salwach, Chester J., (80g:05014a)**
Perrin, Dominique Séries formelles et combinatoires dans le monoïde libre. **(80e:20083)**
Salwach, Chester J. (*with* Mezzaroba, Joseph A.) The four known biplanes with $k = 11$. **(80g:05014a)**
See also **Asmus, E. F., Jr., (80g:05014b)**
Sarwate, Dilip V. *See* **Shedd, Dennis A., (80b:94003)**
Shedd, Dennis A. (*with* Sarwate, Dilip V.) Construction of sequences with good correlation properties. **(80b:94003)**

94B10 Convolutional codes

Baumert, Leonard D. (*with* McEliece, Robert J.; Tilborg, Henk C. A.) Symbol synchronization in convolutionally coded systems. **80j:94027**
Cain, J. Bibb (*with* Clark, George C., Jr.; Geist, John M.) Punctured convolutional codes of rate $(n-1)/n$ and simplified maximum likelihood decoding. **80b:94024**
Clark, George C., Jr. *See* **Cain, J. Bibb; et al., 80b:94024**
Dyn'kin, V. N. (*with* Žegalov, S. I.) Transmission of information by convolution codes with error detection. (Russian) **80g:94057**
Geist, John M. *See* **Cain, J. Bibb; et al., 80b:94024**
McEliece, Robert J. *See* **Baumert, Leonard D.; et al., 80j:94027**
Neifakh, A. ★Сверточные коды для передачи дискретной информации. (Russian) [Convolution codes for discrete information transmission] **80m:94055**
Piret, Philippe Generalized permutations in convolutional codes. (Russian) **80b:94025**
Addendum to: "Generalized permutations in convolutional codes" [Inform. and Control 38 (1978), no. 2, 213–239; MR 80b:94025]. **80j:94028**
Post, Karel A. *See* **Schalkwijk, J. Pieter M.; et al., 80e:94017**
Schalkwijk, J. Pieter M. (*with* Vinck, A. J.; Post, Karel A.) Syndrome decoding of binary rate k/n convolutional codes. **80e:94017**
Tilborg, Henk C. A. *See* **Baumert, Leonard D.; et al., 80j:94027**
Vinck, A. J. *See* **Schalkwijk, J. Pieter M.; et al., 80e:94017**
Žegalov, S. I. *See* **Dyn'kin, V. N., 80g:94057**

Secondary classifications:

Gupta, Dev V. (*with* Wolf, Jack K.) A shortened Viterbi decoding algorithm for terminated rate-$1/N$ convolutional codes with hard decisions. **(80f:94028)**
Hellman, Martin E. *See* **Verriest, Erik, (80b:94021)**
Verriest, Erik (*with* Hellman, Martin E.) Convolutional encoding for Wyner's wiretap channel. **(80b:94021)**
Wolf, Jack K. *See* **Gupta, Dev V., (80f:94028)**

94B15 Cyclic codes

Abdel-Nabi, T. H. (*with* Shiva, S. G. S.) On the cosets of shortened double-error-correcting binary BCH codes. (French and German summaries) **80m:94056**
Belickiĭ, R. I. (*with* Palagin, A. V.) On the problem of constructing cyclic concatenated codes. (Russian) **80a:94030**
Bijaev, R. G. On the question of protecting logical operations with Lagrangian codes. (Russian) **80h:94029**
Chen, Chin Long Equivalent irreducible Goppa codes. **80e:94018**
Davida, George I. *See* **Kam, John B., 80b:68031**
Feng, Ke Qin A combinatorial problem and its application in coding theory. (Chinese) **80a:94031**
Helleseth, Tor A note on the cross-correlation function between two binary maximal length linear sequences. **80k:94027**
No primitive binary t-error-correcting BCH code with $t > 2$ is quasiperfect. **80f:94019**
Kam, John B. (*with* Davida, George I.) A structured design of substitution-permutation encryption network. **80b:68031**
Kosky, Thomas Polynomial approach to quasi-cyclic codes. **80g:94058**
Kurdjukov, A. P. Determination of orbit representatives of abelian codes. **80h:94031**
Lin, Shu (*with* Markowsky, George) On a class of one-step majority-logic decodable cyclic codes. **80f:94015**
van Lint, Jacobus H. (*with* MacWilliams, F. Jessie) Generalized quadratic residue codes. **80a:94032**
MacWilliams, F. Jessie A table of primitive binary idempotents of odd length n, $7 < n < 511$. **80b:94026**
Decomposition of cyclic codes of block lengths $3p$, $5p$, $7p$. **80d:94019**
See also **van Lint, Jacobus H., 80a:94032**
Markowsky, George *See* **Lin, Shu, 80f:94015**
Miller, Robert L. Generalized BCH codes. **80f:94020**
See also **Reed, Irving S.; et al., 80h:94032**
Palagin, A. V. *See* **Belickiĭ, R. I., 80a:94030**
Pless, Vera When is a cycle an information set? **80m:94057**
Reed, Irving S. (*with* Truong, T. K.; Miller, Robert L.) Decoding of B.C.H. and R.S. codes with errors and erasures using continued fractions. **80h:94032**
Sakata, Shojiro General theory of doubly periodic arrays over an arbitrary finite field and its applications. **80d:94020**
Scholtz, Robert A. *See* **Welch, Lloyd R., 80f:94016**
Shankar, Priti On BCH codes over arbitrary integer rings. **80h:94033**
Shiva, S. G. S. *See* **Abdel-Nabi, T. H., 80m:94056**
Takjan, V. I. Weight spectra of some classes of cyclic codes over GF(q). **80h:94034**
van Tilborg, Henk On the existence of acyclic code with rate R. **80c:94013**
Truong, T. K. *See* **Reed, Irving S.; et al., 80h:94032**
Welch, Lloyd R. (*with* Scholtz, Robert A.) Continued fractions and Berlekamp's algorithm. **80f:94016**
Zaĭljubaev, A. Ž. Lagrangian codes. (Russian) **80h:94030**

Secondary classifications:

Blahut, R. E. Transform techniques for error control codes. **(80f:94014)**
Gustavson, Fred G. (*with* Yun, David Y. Y.) Fast algorithms for rational Hermite approximation and solution of Toeplitz systems. **(80h:68040)**
Hartmann, Carlos R. P. *See* **Rudolph, Luther D.; et al., (80g:94063)**

Hill, Raymond Packing problems in Galois geometries over GF(3). **(80e:51013)**
Hwang, Tai Yang *See* **Rudolph, Luther D.; et al., (80g:94063)**
Kanal, Takeo (*with* Sugiyama, Yasuo) On a (21, 11, 6) binary code. **(80b:94023)**
Miller, Robert L. Minimal codes in abelian group algebras. **(80f:94017)**
Nguyen Q. Duc *See* **Rudolph, Luther D.; et al., (80g:94063)**
Rudolph, Luther D. (*with* Hartmann, Carlos R. P.; Hwang, Tai Yang; Nguyen Q. Duc) Algebraic analog decoding of linear binary codes. **(80g:94063)**
Sugiyama, Yasuo *See* **Kanal, Takeo, (80b:94023)**
Tzeng, Kenneth K. (*with* Yu, Chie Y.) Characterization theorems for extending Goppa codes to cyclic codes. **(80f:94018)**
Yu, Chie Y. *See* **Tzeng, Kenneth K., (80f:94018)**
Yun, David Y. Y. *See* **Gustavson, Fred G., (80h:68040)**

94B20 Burst-correcting codes

Aggarwal, R. S. Blockwise Lee-burst-error-correcting codes. **80h:94035**
Arazi, Benjamin The optimal burst-error correcting capability of the codes generated by $f(X)=(X^p+1)(X^q+1)/(X+1)$. **80f:94021**
Gupta, Sat Narain On the existence of moderate-density-burst codes. **80f:94022**
On UEP burst codes. **80f:94023**
Krishnamurthy, J. Some combinatorial results on burst codes. **80d:94021**
Megrelišvili, R. P. Highly efficient burst-error-correcting codes with a simple decoding algorithm. (Russian. Georgian and English summaries) **80f:94024**
Tauglis, G. L. Error-burst-correcting convolutional codes. **80g:94059**

Secondary classifications:

Caprihan, A. (*with* Srivastava, J. N.) Some new properties of Srivastava codes. **(80g:94052)**
Farmer, R. F. (*with* Kaufman, I.) On the numerical evaluation of some basic traffic formulae. **(80j:60123)**
Kaufman, I. *See* **Farmer, R. F., (80j:60123)**
Kaushik, Manohar Lal Single error and burst error correcting codes through a new metric. **(80e:94022)**
Srivastava, J. N. *See* **Caprihan, A., (80g:94052)**

94B25 Combinatorial codes

Aaltonen, Matti J. Linear programming bounds for tree codes. **80f:94025**
Astola, Jaakko On perfect codes in the Lee-metric. **80g:94060**
Banta, Edwin D. A class of nonlinear block codes using the logical Hadamard transform to achieve virtually identical encoding and decoding. **80a:94033**
Chan, Y. K. (*with* Siu, M. K.; Tong, Po) Two-dimensional binary arrays with good autocorrelation. **80j:94029**
Cohen, Gérard (*with* Montaron, Bernard) Empilements parfaits de boules dans les espaces vectoriels binaires. (English summary) **80b:94027**
See also **Montaron, Bernard, 80m:94061**
Dimov, D. T. *See* **Kis'ov, V. T., 80m:94059**
Geck, Renate R. The nonexistence of optimal $(q+2, 3)$-codes of order $q=5$ and $q=7$. **80m:94058**
Jakobsson, M. Huffman coding in bit-vector compression. **80f:94026**
Kis'ov, V. T. (*with* Dimov, D. T.) Binary block codes satisfying a given matrix of minimal distances. (Russian. English summary) **80m:94059**
Laakso, Hannu Nonexistence of nontrivial perfect codes in the case $q=p_1^a p_2^b p_3^c$, $e>3$. **80m:94060**
Landauer, Christopher Lloyd's theorem for perfect codes. **80d:94022**
Montaron, Bernard (*with* Cohen, Gérard) Codes parfaits binaires à plusieurs rayons. (English summary) **80m:94061**
See also **Cohen, Gérard, 80b:94027**
Piess, Vera The children of the (32, 16) doubly even codes. **80b:94028**
Rodger, Christopher A. A family of weakly self-dual codes. **80m:94062**
Seberry, Jennifer (*with* Wehrhahn, K.) A class of codes generated by circulant weighing matrices. **80d:94023**
Ségain, Gérald Linear ensembles of codes. **80g:94061**
Shaughnessy, Edward P. Codes with simple automorphism groups. II. **80c:94014**
Siu, M. K. *See* **Chan, Y. K.; et al., 80j:94029**
Sugimoto, Eiji A short note on new indexing polynomials of finite fields. **80g:94062**
Tietäväinen, A. Some recent results on perfect codes. **80k:94028**
Tong, Po *See* **Chan, Y. K.; et al., 80j:94029**
Wehrhahn, K. *See* **Seberry, Jennifer, 80d:94023**

Secondary classifications:

Blake, Ian F. (*with* Melkman, Avraham A.) On an inverse for sections of a binomial matrix. **(80a:15017)**
Brouwer, A. E. Optimal packings of K_4's into a K_n. **(80j:05049)**
Cameron, Peter J. Permutation groups on unordered sets. **(80b:05001)**
Delsarte, Philippe Bilinear forms over a finite field, with applications to coding theory. **(80a:94040)**
Hedayat, A. (*with* Wallis, W. D.) Hadamard matrices and their applications. **(80e:05037)**
Heise, Werner Es gibt keinen optimalen $(n+2, 3)$-Code einer ungeraden Ordnung n. **(80e:05039)**
van Lint, Jacobus H. Ovales et codages. **(80j:05018)**
Melkman, Avraham A. *See* **Blake, Ian F., (80a:15017)**
Wallis, W. D. *See* **Hedayat, A., (80e:05037)**

94B30 Majority codes

94B35 Decoding

Battail, Gérard (*with* Decouvelaere, Martine C.; Godlewski, Philippe) Replication decoding. **80e:94019**
Bedi, J. S. (*with* Kamal, A. K.) On Viterbi decoding for time-varying convolutional codes. **80a:94034**
Capocelli, Renato M. A note on uniquely decipherable codes. **80f:94027**
Costello, Daniel J., Jr. *See* **Peterson, Roger, 80b:94029**
Decouvelaere, Martine C. *See* **Battail, Gérard; et al., 80e:94019**
Delsarte, Philippe Partial-optimal piecewise decoding of linear codes. **80h:94036**
El-Guebaly, S. *See* **Shiva, S. G. S., 80m:94066**
Godlewski, Philippe Codes de Reed Solomon: utilisation et liens avec la transformation de Fourier discrète. (English summary) **80m:94063**
See also **Battail, Gérard; et al., 80e:94019**
Gupta, Dev V. (*with* Wolf, Jack K.) A shortened Viterbi decoding algorithm for terminated rate-$1/N$ convolutional codes with hard decisions. **80f:94028**
Hartmann, Carlos R. P. *See* **Rudolph, Luther D.; et al., 80g:94063**
Hwang, Tai Yang Decoding linear block codes for minimizing word error rate. **80m:94064**
On the error-correcting capability of algebraic analog decoding. **80k:94029**
See also **Rudolph, Luther D.; et al., 80g:94063**
Imai, Hideki (*with* Kamiyanagi, Yutaka) A method of constructing double-error-correcting codes for application to main memories. **80h:94037**
Johannesson, Rolf On the distribution of computation for sequential decoding using the stack algorithm. **80e:94020**
Kamal, A. K. *See* **Bedi, J. S., 80a:94034**
Kamiyanagi, Yutaka *See* **Imai, Hideki, 80h:94037**
Mandelbaum, David M. On vote-taking and complete decoding of certain error-correcting codes. **80m:94065**
Nguyen Q. Duc *See* **Rudolph, Luther D.; et al., 80g:94063**
Peterson, Roger (*with* Costello, Daniel J., Jr.) Binary convolutional codes for a multiple-access channel. **80b:94029**
Raina, Neelam *See* **Sharma, Bhu Dev, 80a:94035**
Rudolph, Luther D. (*with* Hartmann, Carlos R. P.; Hwang, Tai Yang; Nguyen Q. Duc) Algebraic analog decoding of linear binary codes. **80g:94063**
Sharma, Bhu Dev (*with* Raina, Neelam) Coding theorem for a generalized maximum likelihood decoding scheme. **80a:94035**
Shiva, S. G. S. (*with* El-Guebaly, S.) On quartics in relation to BCH decoding. (French and German summaries) **80m:94066**
Wolf, Jack K. *See* **Gupta, Dev V., 80f:94028**
Žailjubaev, A. Ž. The comparison of Lagrange codes with a class of residue codes. (Russian) **80m:94067**

Secondary classifications:

Barsi, Ferruccio (*with* Maestrini, Piero) Arithmetic codes in residue number systems. (French and German summaries) **(80a:94036)**
Cain, J. Bibb (*with* Clark, George C., Jr.; Geist, John M.) Punctured convolutional codes of rate $(n-1)/n$ and simplified maximum likelihood decoding. **(80b:94024)**
Clark, George C., Jr. *See* **Cain, J. Bibb; et al., (80b:94024)**
Geist, John M. *See* **Cain, J. Bibb; et al., (80b:94024)**
Hoggar, S. G. Bounds for quaternionic line systems and reflection groups. **(80k:94032)**
Katseff, Howard P. Complexity dips in random infinite binary sequences. **(80a:68105)**
Leighton, William J., III (*with* Tan, Harry H.) Trellis coding for degraded broadcast channels. **(80d:94012)**
Maestrini, Piero *See* **Barsi, Ferruccio, (80a:94036)**
Matsuzawa, Kazumitsu (*with* Tohma, Yoshihiro) A method of multiple-error-correction for computer main memory. **(80h:68001)**
Raina, Neelam *See* **Sharma, Bhu Dev, (80j:94016)**
Sharma, Bhu Dev (*with* Raina, Neelam) A coding theorem for multiple access channels using a maximum likelihood list decoding scheme. **(80j:94016)**
Tan, Harry H. *See* **Leighton, William J., III, (80d:94012)**
Tohma, Yoshihiro *See* **Matsuzawa, Kazumitsu, (80h:68001)**

94B40 Arithmetic codes

Arora, R. K. (*with* Sharma, Saroj) Correction of multiple errors and detection of additive overflow in residue code. **80b:94030**
Avižienis, Algirdas *See* **Parhami, Behrooz, 80a:94038**
Barsi, Ferruccio (*with* Maestrini, Piero) Arithmetic codes in residue number systems. (French and German summaries) **80a:94036**
Liu, Chao Kai (*with* Wang, Tse Lin) Error-correcting codes in binary-coded-decimal arithmetic. **80a:94037**
Maestrini, Piero *See* **Barsi, Ferruccio, 80a:94036**
Parhami, Behrooz (*with* Avižienis, Algirdas) Detection of storage errors in mass memories using low-cost arithmetic error codes. **80a:94038**
Sharma, Saroj *See* **Arora, R. K., 80b:94030**
Wang, Tse Lin *See* **Liu, Chao Kai, 80a:94037**

Secondary classifications:

Akušskiĭ, I. Ja. (*with* Burcev, V. M.; Pak, I. T.) A new positional characteristic of nonpositioned codes and its applications. (Russian) **(80e:68003)**
Barsi, Ferruccio (*with* Maestrini, Piero) Arithmetic codes in residue number systems with magnitude index. **(80e:68006)**
Burcev, V. M. *See* **Akušskiĭ, I. Ja.; et al., (80e:68003)**
Maestrini, Piero *See* **Barsi, Ferruccio, (80e:68006)**
Pak, I. T. *See* **Akušskiĭ, I. Ja.; et al., (80e:68003)**

94B45 Prefix, length-variable, comma-free codes

Ball, A. H. A complete list of CF(2, 5) codes. **80f:94029**
(*with* Cummings, L. J.) Lower bounds for CF(n, 6) codes. **80m:94068**
The comma-free codes with words of length three. **80k:94038**
Cummings, L. J. *See* **Ball, A. H., 80m:94068**
Gulbas, Leo J. (*with* Odlyzko, Andrew M.) Maximal prefix-synchronized codes. **80d:94024**
Lassez, J.-L. Messages parasites et codes synchronisants. **80d:94025**
Odlyzko, Andrew M. *See* **Gulbas, Leo J., 80d:94024**
Perrin, Dominique Codes asynchrones. **80d:94026**
Le degré minimal du groupe d'un code bipréfixe fini. (English summary) **80g:94064**
Veloso, Paulo A. S. Characterizing the regular prefix codes and right power-bounded languages. **80g:94065**

Secondary classifications:

Lassez, J.-L. (*with* Shih, Hui Jan) Prefix properties and equations in the monoid of languages. **(80i:68060)**
Shih, Hui Jan *See* **Lassez, J.-L., (80i:68060)**

94B50 Synchronization error-correcting codes

De Luca, A. (*with* Perrin, Dominique; Restivo, Antonio; Termini, S.) Synchronization and simplification. **80k:94030**
Perrin, Dominique *See* **De Luca, A.; et al., 80k:94030**
Restivo, Antonio *See* **De Luca, A.; et al., 80k:94030**
Scholtz, Robert A. (*with* Welch, Lloyd R.) Group characters: sequences with good correlation properties. **80g:94066**
Termini, S. *See* **De Luca, A.; et al., 80k:94030**
Welch, Lloyd R. *See* **Scholtz, Robert A., 80g:94066**

Secondary classifications:

Boé, Jean Marie Une famille remarquable de codes indécomposables. **(80d:68085)**
Lassez, J.-L. Messages parasites et codes synchronisants. **(80d:94025)**

94B60 Other types of codes

Ashjaee, M. J. (*with* Reddy, Sudhakar M.) A new class of codes and their properties in the design of totally self-checking circuits. **80h:94039**
Constantin, Serban D. (*with* Rao, T. R. N.) On the theory of binary asymmetric error correcting codes. **80f:94030**
Downey, Charles (*with* Karlof, John) Optimal [M, 3] group codes for the Gaussian channel. **80a:94039**
Hackvič, V. H. Questions on the construction of redundant nonpositional codes. **80k:94031**
Karlof, John *See* **Downey, Charles, 80a:94039**
Mandelbaum, David M. Construction of error correcting codes by interpolation. **80e:94021**
Pak, I. T. (*with* Turmuhambetov, R. N.) Construction of nonpositional codes for hypercomplex numbers. (Russian. Kazakh summary) **80m:94069**
Rao, T. R. N. *See* **Constantin, Serban D., 80f:94030**
Reddy, Sudhakar M. *See* **Ashjaee, M. J., 80h:94039**
Turmuhambetov, R. N. *See* **Pak, I. T., 80m:94069**

Secondary classifications:

Blake, Ian F. (*with* Cohen, Gérard; Deza, Mikhaïl) Coding with permutations. **(80k:05020)**
Cohen, Gérard *See* **Blake, Ian F.; et al., (80k:05020)**
Deza, Mikhaïl *See* **Blake, Ian F.; et al., (80k:05020)**
Klove, Torleiv Noncovering of multiples. **(80h:05005)**
Lax, M. Analytic solution of a model pulse propagation problem. **(80c:35015)**
Shankar, Priti On BCH codes over arbitrary integer rings. **(80k:94033)**

94B70 Error probability

Barnes, Earl R. *See* **Leung-Yan-Cheong, Sik K.; et al., 80b:94031**
Friedman, Daniel U. *See* **Leung-Yan-Cheong, Sik K.; et al., 80b:94031**
Kasahara, Masao *See* **Tatebayashi, Makoto; et al., 80b:94032**
Leung-Yan-Cheong, Sik K. (*with* Barnes, Earl R.; Friedman, Daniel U.) On some properties of the undetected error probability of linear codes. **80b:94031**
Namekawa, Toshihiko *See* **Tatebayashi, Makoto; et al., 80b:94032**
Tatebayashi, Makoto (*with* Kasahara, Masao; Namekawa, Toshihiko) Error statistics and construction of error correcting codes for differentially encoded CPSK channels. **80b:94032**

94B99 None of the above, but in this section

Delsarte, Philippe Bilinear forms over a finite field, with applications to coding theory. **80a:94040**
Fäk, Viiveke Repeated use of codes which detect deception. **80c:94015**
(Herlestam, T.) *See* **Rivest, Ronald L., 80m:94070**
Herlestam, Tore Critical remarks on some public-key cryptosystems. **80b:94033**
Hoggar, S. G. Bounds for quaternionic line systems and reflection groups. **80k:94032**
Kanshik, Manohar Lal Single error and burst error correcting codes through a new metric. **80e:94022**
Lu, Shyue Ching Random ciphering bounds on a class of secrecy systems and discrete message sources. **80g:94067**
On secrecy systems with side information about the message available to a cryptanalyst. **80g:94068**
The existence of good cryptosystems for key rates greater than the message redundancy. **80g:94069a**
Addition to: "The existence of good cryptosystems for key rates greater than the message redundancy" [IEEE Trans. Inform. Theory **25** (1979), no. 4, 475–477; MR 80g:94069]. **80g:94069b**
Palmer, James T. *See* **Smith, Donald R., 80m:94071**
Reeds, James Cracking a multiplicative congruential encryption algorithm. **80k:94040**
Rivest, Ronald L. Critical remarks on: "Critical remarks on some public-key cryptosystems" [BIT **18** (1978), no. 4, 493–496; MR 80b:94033] by T. Herlestam. **80m:94070**
Schmid, B. *See* **Williams, H. C., 80m:94072**
Shamir, Adi How to share a secret. **80g:94070**
Smith, Donald R. (*with* Palmer, James T.) Universal fixed messages and the Rivest-Shamir-Adleman cryptosystem. **80m:94071**
Williams, H. C. (*with* Schmid, B.) Some remarks concerning the M.I.T. public-key cryptosystem. **80m:94072**

Secondary classifications:

Barker, Wayne G. The unsolved d'Agapeyeff cipher. **(80k:05013)**
Konheim, Alan G. Cryptographic methods for data protection. **(80k:68015)**
Rubin, Frank Decrypting a stream cipher based on J-K flip-flops. **(80k:94049)**
Šimáně, Čestmír de Bruijn cycles and their application for encoding of discrete positions. **(80e:05073)**
Simmons, Gustavus J. Computational complexity and asymmetric encryption. **(80h:68017)**
Stahnke, Wayne On the toggle register polynomial. **(80i:94023)**

94Cxx Circuits, networks

(Garmaš, V. A.) *See* **Information networks and their analysis, 80f:94031**
(Grinberg, È. Ja.) *See* **Mathematical modeling, 80d:94027**
(Harkevič, A. D.) *See* **Information networks and their analysis, 80f:94031**
(Puhov, G. È.) *See* **Mathematical modeling and the theory of electrical circuits, 80k:94033a**
Circuits and systems *See* **IEEE Symposium: Circuits and Systems, 80a:94041**
Electrical circuits *See* **Mathematical modeling and the theory of electrical circuits, 80k:94033a**
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Circuits and Systems ★1978 IEEE International Symposium on Circuits and Systems Proceedings. **80a:94041**
Information networks and their analysis ★Информационные сети и их анализ. (Russian) [Information networks and their analysis] **80f:94031**
Mathematical modeling ★Математическое моделирование. (Russian) [Mathematical modeling] **80d:94027**
Mathematical modeling and the theory of electrical circuits ★Математическое моделирование и теория электрических цепей. Вып. 16. (Russian) [Mathematical modeling and the theory of electrical circuits. No. 16] **80k:94033a**
New York *See* **IEEE Symposium: Circuits and Systems, 80a:94041**

94C05 Analytic circuit theory

Ahmad, M. O. (*with* Reddy, C. H.; Ramachandran, V.; Swamy, M. N. S.) A class of multivariable positive real functions realizable by resistively terminated lossless ladder networks. **80h:94041**
(*with* Reddy, C. H.; Ramachandran, V.; Swamy, M. N. S.) Ladder realizations of multivariable positive real functions. **80c:94016**
(*with* Reddy, C. H.; Ramachandran, V.; Swamy, M. N. S.) Partial derivative properties of multivariable cascaded networks. **80g:94071**
Anderson, Brian D. O. (*with* Kailath, Thomas) Passive network synthesis via dual spectral factorization. **80h:94042**
Anderson, William N., Jr. (*with* Morley, T. D.; Trapp, George E.) Fenchel duality of nonlinear networks. **80a:94042**
Babak, V. M. Interpretation of the Hamilton equation and examples of its application to the investigation of the stability of parametric chains. (Russian. English summary) **80e:94023**
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1980 MATHEMATICS SUBJECT CLASSIFICATION

Reprinted from: Annual Index–1979

1980 MATHEMATICS SUBJECT CLASSIFICATION

This is a corrected reprinting of the 1980 Mathematics Subject Classification. The corrections carried out since the first printing (in the 1978 Mathematical Reviews Index) include the following:

The entry "–00" at the beginning of each major section was dropped; classifiers should use "–XX" instead.

Section 08A02 has been instituted to accommodate some of the items from 08A05 in the 1970 classification (the whole of 08Axx now covers the 08A25 from 1970) and all items from the 08.20 in the 1968 classification; the majority of papers on "probabilistic metric spaces", Menger spaces, etc. will belong in the new 08A02. The erroneous cross-references between 10C05 and 13K05 have been deleted. In 44, Moment problems were reinstated as 44A60, and Discrete operational calculus had to be relabeled 44A55. Sections 52A50 and 52A55 were reinstated. Section 53C65 was clarified. Section 65L07 was clarified and 65L20 added. Section 81C12 was split into 81C12 and 81C15. Sections 90C15 and 90C42 were combined into 90C15; sections 90C40, 90C45 and 90C47 were combined into 90C40.

The following sections are also new: 01–01, 01–02; 05C70, 05C75; 10K50; 22E41; 42A61; 46G12; 49A51, 49A55; 54B40; 73C02, 73C03, 73K40; 76B35, 76D35; 90A09; 93B50, 93B55.

Instructions for using the 1980 Mathematics Subject Classification

These instructions apply uniformly to all fields listed. The main purpose of the classification is to help all readers to find the items of present or potential interest to them as readily as possible—in MR, in Zbl, or anywhere else where this classification system is used. The review of a paper or book should be printed in the section where it will receive the broadest attention from all readers possibly interested in it—these include both people working in that area and people who are familiar with that area and apply its results and methods elsewhere (inside or outside of mathematics). It will be extremely useful for both readers and classifiers to familiarize themselves with the entire classification system and thus to become aware of all the classifications of possible interest to them.

Every paper or book reviewed in MR receives precisely one "primary" classification number; it is simply the number of the section in which the review of the item will be printed. This section should be the one that covers the principal contribution. When a paper contains several principal contributions in different areas, the primary classification should cover the "most important" among them. A paper or book may receive one or several "secondary" classification numbers (or "cross-references"), to cover any remaining principal contributions, ancillary results, motivation or origin of the problems discussed, intended or potential field of application, or other significant aspects worthy of notice.

The "primary" principal contribution should be the one including the most important part of the work actually done in the paper. For example, a paper whose main overall content is the solution of a problem in graph theory, which arose in computer science and whose solution is (perhaps) at present only of interest to computer scientists, should receive its primary classification in 05C and a cross-reference in 68; conversely, papers whose overall content lies mainly in computer science will receive a primary classification in 68, even if they make heavy use of graph theory and prove several new graph theoretic results along the way.

For any paper or book with its primary classification in (i.e., printed in) an "applied" section (68 through 94), it is recommended to give a cross-reference in some mathematics section(s) (00 through 65) whenever that is appropriate. Do not use 00A89 as a primary classification.

There are two types of cross-references given after many classifications in the list. The first type is of the form "{For A, see X}"; if this appears in section Y, it means that for contributions described by A one should usually assign the classification X, not Y. The other type of cross-reference merely points out related classifications; it is of the form "[See also . . .]", "[See mainly . . .]", etc., and the classifications listed in the brackets may, but need not, be added to the classification of a paper, or they may be used in place of the classification where the cross-reference is given. The classifier will have to judge which classification is the most appropriate for the paper at hand.

00–XX GENERAL

- 00–01 Elementary exposition, textbooks
- 00–02 Advanced exposition (research surveys, monographs, etc.)
- 00A05 General mathematics
- 00A06 Mathematics for nonmathematicians (engineering, social sciences, etc.)
- 00A07 Problem books
- 00A10 Collections of papers; proceedings of conferences of general interest, translation volumes, etc. [See also 01A75.]
- 00A15 General bibliographies
- 00A20 Dictionaries and other general reference works
- 00A22 Formularies
- 00A25 Methodology and philosophy of mathematics
- 00A69 General applied mathematics {For cross reference to reviews printed in Sections 70 through 86, use 00A89.}; theory of mathematical modeling
- 00A89 Physics (to be used in cross references to reviews printed in Sections 70 through 86, only when no other numbers from Sections 00 through 65 are suitable)
- 00A99 Miscellaneous topics

01–XX HISTORY AND BIOGRAPHY [See also the classification number –03 in the other sections.]

- 01–01 Elementary exposition, textbooks
- 01–02 Advanced exposition (research surveys, monographs, etc.)
- 01–06 Proceedings, conferences, etc.
- 01A05 General histories, source books
- 01A10 Primitive, Paleolithic, Neolithic
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- 01A40 15th and 16th centuries, Renaissance
- 01A45 17th century
- 01A50 18th century
- 01A55 19th century
- 01A60 20th century
- 01A65 Contemporary
- 01A70 Biographies, obituaries, personalia
- 01A72 Schools of mathematics
- 01A73 Universities
- 01A74 Other institutions and academies
- 01A75 Collected or selected works; reprintings or translations of classics
- 01A80 Sociology (and profession) of mathematics
- 01A99 Miscellaneous topics

03–XX MATHEMATICAL LOGIC AND FOUNDATIONS

- 03–01 Elementary exposition, textbooks
- 03–02 Advanced exposition (research surveys, monographs, etc.)
- 03–03 Historical (must also be assigned at least one classification number from Section 01)
- 03–04 Explicit machine computation and programs (not the theory of computation or programming)
- 03–06 Proceedings, conferences, etc.
- **03A05 Philosophical and critical**
- **03Bxx General logic**
- 03B05 Classical propositional logic
- 03B10 Pure first-order logic (including many-sorted logic)
- 03B15 Higher-order logic and type-theory
- 03B20 Fragments of classical logic
- 03B25 Decidability of theories and sets of sentences
- 03B30 Foundations of classical theories
- 03B35 Mechanical theorem proving
- 03B40 Combinatory logic and λ-calculus

03B45 Modal and tense logic, entailment, etc.
03B50 Many-valued logic
03B52 Fuzzy logic [See also 94D05.]
03B55 Intermediate logics
03B60 Other nonclassical logic
03B99 None of the above, but in this section

03Cxx Model theory
03C05 Equational classes, universal algebra [See also 08Axx.]
03C10 Quantifier elimination and related topics
03C15 Countable models
03C20 Ultraproducts and related constructions
03C25 Model-theoretic forcing
03C30 Other model constructions
03C35 Categoricity and completeness
03C40 Preservation, interpolation, and definability theorems
03C45 Stability
03C50 Models with special properties (saturated, rigid, etc.)
03C52 Properties of classes of models
03C55 Set-theoretic model theory
03C60 Model-theoretic algebra [See also 08C10.]
03C65 Models of specific theories
03C70 Logic on admissible sets
03C75 Other infinitary logic
03C80 Logic with extra quantifiers and operators
03C85 Second- and higher-order model theory
03C90 Nonclassical models (Boolean-valued, sheaf, etc.)
03C95 Abstract model theory
03C99 None of the above, but in this section

03Dxx Recursion theory
03D03 Thue and Post systems, etc.
03D05 Automata and formal grammars in connection with logical questions [See also 18B20, 68Dxx, 68F10.]
03D10 Turing machines and related notions [See also 68C40.]
03D15 Complexity of computation
03D20 Recursive functions and relations, subrecursive hierarchies
03D25 Recursively enumerable sets and degrees
03D30 Degrees and reducibilities
03D35 Undecidability and degrees of sets of sentences
03D40 Word problems, etc. [See also 06B25, 08A50, 20F10.]
03D45 Theory of numerations, effectively presented structures
03D50 Recursive equivalence types of sets and structures, isols
03D55 Hierarchies
03D60 Recursion theory on ordinals, admissible sets, etc.
03D65 Higher-type recursion theory
03D70 Inductive definability
03D75 Abstract and axiomatic recursion theory
03D80 Applications
03D99 None of the above, but in this section

03Exx Set theory [See also 04–XX.]
03E05 Combinatorial set theory
03E10 Ordinal and cardinal arithmetic
03E15 Descriptive set theory
03E20 Other classical set theory
03E25 Axiom of choice and related propositions
03E30 Axiomatics of classical set theory and its fragments
03E35 Consistency and independence results
03E40 Other aspects of forcing and Boolean-valued models
03E45 Constructibility, ordinal definability, and related notions
03E50 Continuum hypothesis and Martin's axiom [See also 54A25.]
03E55 Large cardinals
03E60 Axiom of determinacy and other axioms which contradict the axiom of choice
03E65 Other hypotheses and axioms
03E70 Nonclassical and second-order set theories
03E72 Fuzzy sets [See also 54A40, 94D05.]
03E75 Applications
03E99 None of the above, but in this section

03Fxx Proof theory and constructive mathematics
03F05 Cut-elimination and normal-form theorems
03F10 Functionals in proof theory
03F15 Recursive ordinals and ordinal notations
03F20 Complexity of proofs
03F25 Relative consistency and interpretations
03F30 First-order arithmetic and fragments
03F35 Second- and higher-order arithmetic and fragments [See also 03E30, 03E70.]
03F50 Metamathematics of constructive systems
03F55 Intuitionistic mathematics
03F60 Recursive analysis
03F65 Other constructive mathematics
03F99 None of the above, but in this section

03Gxx Algebraic logic
03G05 Boolean algebras [See also 06Exx.]
03G10 Lattices and related structures [See also 06Bxx.]
03G12 Quantum logic [See also 81B10.]
03G15 Cylindric and polyadic algebras; relation algebras
03G20 Łukasiewicz and Post algebras
03G25 Other algebras related to logic
03G30 Categorical logic, topoi [See also 18B25.]
03G99 None of the above, but in this section

03Hxx Nonstandard models
03H05 Infinitesimal analysis in pure mathematics [See also 26E35, 30G10, 54J05.]
03H10 Other applications of infinitesimal analysis
03H15 Nonstandard models of arithmetic [See also 10N15, 12L15, 13L15.]
03H20 Other nonstandard models [See also 54J05.]
03H99 None of the above, but in this section

04–XX SET THEORY

04–01 Elementary exposition, textbooks
04–02 Advanced exposition (research surveys, monographs, etc.)
04–03 Historical (must also be assigned at least one classification number from Section 01)
04–04 Explicit machine computation and programs (not the theory of computation or programming)
04–06 Proceedings, conferences, etc.
04A05 Relations, functions [See also 08A02.]
04A10 Transfinite numbers
04A15 Descriptive set theory; Borel classifications, Suslin schemes, etc. [See also 03E15, 28A05, 54H05.]
04A20 Combinatorial [See also 05A05.]; filters
04A25 Axiom of choice and equivalent propositions (Zorn's lemma, etc.) [See also 03E25.]
04A30 Continuum hypothesis, generalized continuum hypothesis [See also 03E50, 54A25.]
04A99 Miscellaneous topics

05–XX COMBINATORICS {For finite fields, see 12Cxx.}

05–01 Elementary exposition, textbooks
05–02 Advanced exposition (research surveys, monographs, etc.)
05–03 Historical (must also be assigned at least one classification number from Section 01)
05–04 Explicit machine computation and programs (not the theory of computation or programming)
05–06 Proceedings, conferences, etc.

05Axx Classical combinatorial problems
05A05 Combinatorial choice problems (subsets, representatives, permutations)
05A10 Factorials, binomial coefficients, combinatorial functions
05A15 Combinatorial enumeration problems, generating functions
05A17 Partitions [See also 10A45.]
05A19 Combinatorial identities
05A20 Combinatorial inequalities
05A99 None of the above, but in this section

05Bxx Designs and configurations {For applications of design theory, see 94C30.}
05B05 Block designs [See also 51E05, 62K10.]
05B10 Difference sets (number-theoretic, group-theoretic, etc.) [See also 10L05.]
05B15 Orthogonal arrays, Latin squares, Room squares
05B20 Matrices (incidence, Hadamard, etc.)
05B25 Finite geometries [See also 51D20, 51Exx.]
05B30 Other designs, configurations [See also 51E30.]
05B35 Matroids, geometric lattices

05B40 Packing and covering [See also 10E30, 52A45.]
05B45 Tessellation and tiling problems
05B50 Polyominoes
05B99 None of the above, but in this section

05Cxx Graph theory {For applications of graphs, see 68D90, 68E10, 94C15.}
05C05 Trees
05C10 Topological graph theory, imbedding [See also 57M15, 57M25.]
05C15 Chromatic theory of graphs and maps
05C20 Directed graphs (digraphs)
05C25 Graphs and groups [See also 20F32.]
05C30 Enumeration of graphs and maps
05C35 Extremal problems
05C38 Paths and cycles
05C40 Connectivity
05C45 Eulerian and Hamiltonian graphs
05C50 Graphs and matrices
05C55 Generalized Ramsey theory
05C60 Reconstruction conjecture
05C65 Hypergraphs
05C70 Factorization, matching, covering and packing
05C75 Structural characterization of types of graphs
05C99 None of the above, but in this section

06–XX ORDER, LATTICES, ORDERED ALGEBRAIC STRUCTURES [See also 18B35.]

06–01 Elementary exposition, textbooks
06–02 Advanced exposition (research surveys, monographs, etc.)
06–03 Historical (must also be assigned at least one classification number from Section 01)
06–04 Explicit machine computation and programs (not the theory of computation or programming)
06–06 Proceedings, conferences, etc.

06Axx Ordered sets
06A05 Total order
06A10 Partial order
06A12 Semilattices [See also 20M10.]
06A15 Galois correspondences, closure operators
06A23 Complete lattices, completions
06A99 None of the above, but in this section

06Bxx Lattices [See also 03G10.]
06B05 Structure theory
06B10 Ideals, congruence relations
06B15 Representation theory
06B20 Varieties of lattices
06B25 Free lattices, projective lattices, word problems [See also 03D40, 08A50, 20F10.]
06B30 Topological lattices, order topologies [See also 06F30, 54F05, 54H12.]
06B99 None of the above, but in this section

06Cxx Modular lattices, complemented lattices
06C05 Modular lattices, Desarguesian lattices
06C10 Semimodular lattices, geometric lattices
06C15 Complemented lattices, orthocomplemented lattices
06C20 Complemented modular lattices, continuous geometries
06C99 None of the above, but in this section

06Dxx Distributive lattices
06D05 Structure and representation theory
06D10 Complete distributivity
06D15 Pseudocomplemented lattices
06D20 Heyting algebras [See also 03Gxx.]
06D25 Post algebras [See also 03G20.]
06D30 DeMorgan algebras, Łukasiewicz algebras [See also 03G20.]
06D99 None of the above, but in this section

06Exx Boolean algebras [See also 03G05.]
06E05 Structure theory
06E10 Chain conditions, complete algebras
06E15 Topological representation
06E20 Boolean rings [See also 16A30, 16A32.]
06E99 None of the above, but in this section

06Fxx Ordered structures [See also 22A26, 54F05.]
06F05 Ordered semigroups [See also 20Mxx.]
06F10 Noether lattices
06F15 Ordered groups [See also 20F60.]
06F20 Ordered abelian groups, ordered linear spaces [See also 46A40.]
06F25 Ordered rings, algebras, modules {For ordered fields, see 10M15, 12J15; see also 13J25, 16A86.}
06F30 Topological lattices, order topologies [See also 06B30, 54F05, 54H12.]
06F99 None of the above, but in this section

08–XX GENERAL MATHEMATICAL SYSTEMS

08–01 Elementary exposition, textbooks
08–02 Advanced exposition (research surveys, monographs, etc.)
08–03 Historical (must also be assigned at least one classification number from Section 01)
08–04 Explicit machine computation and programs (not the theory of computation or programming)
08–06 Proceedings, conferences, etc.

08Axx Universal algebra [See also 03C05.]
08A02 Relational systems, laws of composition
08A05 Structure theory
08A30 Subalgebras, congruence relations
08A35 Automorphisms, endomorphisms
08A40 Operations, polynomials, primal algebras
08A45 Equational compactness
08A50 Word problems [See also 03D40, 20F10.]
08A55 Partial algebras
08A60 Unary algebras
08A65 Infinitary algebras
08A99 None of the above, but in this section

08Bxx Varieties
08B05 Equational logic, Mal'cev conditions
08B10 Congruence modularity, congruence distributivity
08B15 Lattices of varieties
08B20 Free algebras
08B25 Products, amalgamated products
08B30 Injectives, projectives
08B99 None of the above, but in this section

08Cxx Classes of algebras
08C05 Categories of algebras [See also 18C05.]
08C10 Axiomatic model classes [See also 03Cxx, in particular 03C60.]
08C15 Quasivarieties
08C99 None of the above, but in this section

10–XX NUMBER THEORY {Excluding 10Axx and 10Mxx, this classification does not distinguish work in the rational number fields from that in other algebraic number fields.}

10–01 Elementary exposition, textbooks
10–02 Advanced exposition (research surveys, monographs, etc.)
10–03 Historical (must also be assigned at least one classification number from Section 01)
10–04 Explicit machine computation and programs (not the theory of computation or programming)
10–06 Proceedings, conferences, etc.

10Axx Elementary number theory {For analogues in number fields, see 12A05.}
10A05 Multiplicative structure of the integers (GCD, etc.)
10A10 Congruences, primitive roots
10A15 Power residues, reciprocity
10A20 Number-theoretic functions, related numbers; inversion formulas
10A21 Counting functions
10A22 Abstract theory of number-theoretic functions
10A25 Elementary prime number theory, factorization
10A30 Algorithms and expansions; digital properties {For metric results, see 10K10.}
10A32 Continued fractions {For approximation results, see 10F20; see also 30B70, 40A15.}
10A35 Recurrence sequences

10A40 Special numbers, sequences and polynomials (e.g. Bernoulli)
10A45 Partitions
10A99 None of the above, but in this section

10Bxx Diophantine equations [See also 14Gxx.]
10B05 Linear, quadratic and bilinear equations
10B10 Cubic and quartic equations
10B15 Higher degree equations
10B16 Norm form equations
10B20 Multiplicative equations
10B25 Nonpolynomial equations
10B30 Equations in sufficiently many variables [See also 10J10.]
10B35 Representation problems [See also 10J10.]
10B40 p-adic and power series fields
10B45 Diophantine inequalities
10B99 None of the above, but in this section

10Cxx Forms (especially quadratic) (For quadratic forms in linear algebra, see 15A63.)
10C01 Forms over general fields (especially quadratic)
10C02 Forms over global rings and fields (especially quadratic)
10C03 Forms over local rings and fields (especially quadratic)
10C04 Forms over real fields
10C05 Quadratic, bilinear and Hermitian forms [See also 10E25.], general theory (including Witt rings of quadratic forms)
10C07 Class numbers of quadratic and Hermitian forms
10C10 Higher degree forms
10C15 Analytic theory (Epstein's zeta function; relations with automorphic forms and functions)
10C20 p-adic theory
10C25 Minima of forms [See also 10E20.]
10C30 Arithmetic properties of classical groups [See also 20Gxx.]
10C99 None of the above, but in this section

10Dxx Theory of automorphic and modular functions and forms [See also 12A67, 12B27, 14Gxx, 14Kxx, 22E50, 22E55, 30F35, 32Nxx; for relations with quadratic forms, see 10C15.]
10D05 Modular and automorphic functions
10D07 Structure of modular groups and generalizations, arithmetic groups [See also 20H05, 20H10, 22E40.]
10D12 Modular forms, one variable
10D15 Automorphic forms, one variable
10D20 Modular and automorphic forms, several variables
10D21 Hilbert modular forms and surfaces [See also 14J20.]
10D23 Congruence properties
10D24 Relations with Dirichlet series
10D25 Complex multiplication [See also 14K22.]
10D30 p-adic theory, local fields [See also 14G20, 22E50.]
10D35 Galois properties
10D40 Representation-theoretic methods, trace formulas
10D45 Uniformization, periods and cohomology
10D99 None of the above, but in this section

10Exx Geometry of numbers
10E05 Lattices and convex bodies [See also 10J25.]
10E10 Nonconvex bodies
10E15 Products of linear forms
10E20 Minima of forms [See also 10C25.]
10E25 Quadratic forms (reduction, extreme forms, etc.) [See also 10C05.]
10E30 Lattice packing and covering [See also 05B40, 52A45.]
10E35 Mean value theorems
10E40 Transfer theorems
10E45 Automorphism groups of lattices [See also 10C30.]
10E99 None of the above, but in this section

10Fxx Diophantine approximation [See also 10K15.]
10F05 Approximation to one number
10F10 Simultaneous approximation
10F15 Nonhomogeneous approximation
10F20 Continued fractions and generalizations [See also 10A32, 10K10.]
10F25 Approximation to algebraic numbers
10F30 Approximation by numbers from a fixed field
10F35 Irrationality and transcendence
10F37 Independence results
10F40 Distribution modulo one [See also 10K05.]
10F45 Approximation in non-Archimedean valuations
10F99 None of the above, but in this section

10Gxx Trigonometric sums, exponential sums and character sums
10G05 Exponential sums
10G10 Estimates on exponential sums
10G15 Character sums
10G20 Estimates on character sums
10G99 None of the above, but in this section

10Hxx Multiplicative theory
10H05 Riemann's zeta function, functional equation
10H08 Dirichlet L-function, functional equation
10H10 Other zeta functions (For local and global ground fields, see 12A70, 12A80, 12B30, 12B35; for algebro-geometric methods, see 14G10; see also 10C15, 10D40.)
10H15 Distribution of primes and of integers with specified multiplicative properties
10H20 Distribution in progressions and other sequences [See also 10L20.]
10H22 Turán theory
10H25 Asymptotic results on arithmetic functions
10H26 Asymptotic results on counting functions for algebraic and topological structures
10H30 Sieves, upper and lower estimates
10H32 Applications of sieve methods
10H35 Distribution of residue classes (primitive roots, power residues, etc.)
10H40 Generalized primes and integers
10H45 Almost-periodic number-theoretic functions [See also 10K35.]
10H99 None of the above, but in this section

10Jxx Additive theory
10J05 Sums of squares
10J06 Sums of higher powers
10J10 Applications of Hardy-Littlewood method [See also 10B35.]
10J15 Additive questions involving primes
10J20 Analytic work on partitions [See also 10A45.]
10J25 Lattice points in large regions
10J99 None of the above, but in this section

10Kxx Probabilistic theory; measure, dimension, etc.
10K05 Distribution modulo one [See also 10F40.]
10K10 Algorithms and expansions [See also 10A30, 10F20.]
10K15 Diophantine approximation [See also 10Fxx.]
10K20 Arithmetic functions
10K25 Normal numbers
10K30 Irregularities of distribution
10K35 Harmonic analysis and almost periodicity [See also 10H45.]
10K40 Non-Archimedean theory
10K50 Measure; Hausdorff dimension
10K99 None of the above, but in this section

10Lxx Sequences of integers
10L02 Density of sum sets, analogues and generalizations
10L05 Addition of sequences, additive bases [See also 05B10.]
10L10 Special sequences (density, multiplicative, additive and other properties)
10L15 Representation functions
10L20 Arithmetic progressions [See also 10H20.]
10L99 None of the above, but in this section

10Mxx Rational arithmetic of algebraic objects
10M05 Polynomials [See also 13F20.]
10M10 Valued fields [See also 12J10.]
10M15 Ordered fields [See also 12J15.]
10M20 Matrices [See also 15A36.]
10M99 None of the above, but in this section

10Nxx Connections with logic
10N05 Decidability [See also 03B25.]
10N10 Ultraproducts [See also 03C20.]
10N15 Nonstandard arithmetic [See also 03H15.]
10N99 None of the above, but in this section

12–XX ALGEBRAIC NUMBER THEORY, FIELD THEORY AND POLYNOMIALS

12–01 Elementary exposition, textbooks
12–02 Advanced exposition (research surveys, monographs, etc.)
12–03 Historical (must also be assigned at least one classification number from Section 01)
12–04 Explicit machine computation and programs (not the theory of computation or programming)
12–06 Proceedings, conferences, etc.

12Axx Algebraic number theory: global fields {For complex multiplication, see 10D25.}

12A05 Analogues in number fields of elementary number theory
12A10 Characterizations of algebraic numbers and algebraic functions
12A15 Special algebraic numbers (PV numbers, etc.)
12A20 Polynomials (irreducibility, etc.)
12A25 Quadratic fields
12A30 Cubic and quartic fields
12A35 Abelian and metabelian extensions (including cyclotomic, Kummer, cyclic)
12A40 Other number fields
12A45 Units and factorization
12A50 Class number, discriminant
12A55 Galois theory
12A57 Integral representations related to algebraic numbers [See also 20C10.]
12A60 Galois cohomology [See also 12Gxx, 16A16.]
12A62 Applications of algebraic K-theory
12A65 Class field theory
12A67 Langlands-Weil conjectures, nonabelian class field theory [See also 10Dxx, 22E55.]
12A70 Zeta functions of number fields and generalizations [See also 10H08, 10H10.]
12A75 Density theorems
12A80 Arithmetic of algebras [See also 12B35, 16A18, 16A39.]
12A82 Zeta functions of algebras
12A85 Analysis in adèle rings and groups
12A90 Arithmetic theory of algebraic function fields [See also 14–XX.]
12A95 Totally real and totally positive fields
12A99 None of the above, but in this section

12Bxx Algebraic number theory: local and p-adic fields

12B05 Polynomials
12B10 Ramification and extension theory
12B15 Galois theory
12B17 Integral representations
12B20 Galois cohomology [See also 12Gxx, 16A16.]
12B22 Applications of algebraic K-theory
12B25 Class field theory
12B27 Langlands-Weil conjectures, nonabelian class field theory [See also 10Dxx, 22E50.]
12B30 Zeta and L-functions [See also 10H08, 10H10.]
12B35 Arithmetic of algebras [See also 12A80, 16A18, 16A39.]
12B37 Zeta functions of algebras
12B40 Other analytic theory
12B45 Other nonanalytic theory
12B99 None of the above, but in this section

12Cxx Finite fields, and finite commutative rings (number-theoretic aspects)

12C05 Polynomials
12C10 Linear sequences
12C15 Arithmetic
12C20 Cyclotomy
12C25 Exponential sums
12C30 Structure theory
12C99 None of the above, but in this section

12Dxx Real and complex fields

12D05 Polynomials: factorization
12D10 Polynomials: location of zeros (algebraic theorems) {For the analytic theory, see 26C10, 30C15.}
12D15 Formally real fields
12D99 None of the above, but in this section

12Exx General field theory

12E05 Polynomials (irreducibility, etc.)
12E10 Special polynomials
12E12 Equations
12E15 Skew fields, division rings [See also 12A80, 12B35, 16A39.]
12E99 None of the above, but in this section

12Fxx Field extensions

12F05 Algebraic extensions
12F10 Separable extensions, Galois theory
12F15 Inseparable extensions, derivations
12F20 Transcendental extensions
12F99 None of the above, but in this section

12Gxx Homological methods

12G05 Galois cohomology [See also 12A60, 12B20, 13A20, 16A16.]
12G10 Cohomological dimension
12G99 None of the above, but in this section

12Hxx Differential and difference algebra

12H05 Differential algebra [See also 13N05.]
12H10 Difference algebra [See also 39Axx.]
12H20 Abstract differential equations [See also 34G05.]
12H25 p-adic differential equations [See also 12B40, 14G20, 34G05.]
12H99 None of the above, but in this section

12Jxx Topological fields

12J05 Normed fields
12J10 Valued fields [See also 10M10.]
12J15 Ordered fields [See also 10M15.]
12J17 Topological semi-fields
12J20 General valuation theory
12J25 Non-Archimedean valued fields [See also 26E30, 30G05, 32D25, 46P05.]
12J27 Krasner-Tate algebras [See mainly 32E27, also 46P05.]
12J99 None of the above, but in this section

12Kxx Generalizations

12K05 Near-fields [See also 16A76.]
12K10 Semi-fields [See also 16A78.]
12K99 None of the above, but in this section

12Lxx Connections with logic

12L05 Decidability
12L10 Ultraproducts
12L15 Nonstandard arithmetic [See also 03H15.]
12L99 None of the above, but in this section

13–XX COMMUTATIVE RINGS AND ALGEBRAS {For the noncommutative case, see 16–XX.}

13–01 Elementary exposition, textbooks
13–02 Advanced exposition (research surveys, monographs, etc.)
13–03 Historical (must also be assigned at least one classification number from Section 01)
13–04 Explicit machine computation and programs (not the theory of computation or programming)
13–06 Proceedings, conferences, etc.

13Axx General commutative ring theory

13A05 Divisibility
13A10 Radical theory
13A15 Ideals
13A17 Prime and primary ideals and their generalizations
13A18 Valuations and their generalizations
13A20 Brauer groups [See also 12Gxx, 16A16.]
13A99 None of the above, but in this section

13Bxx Ring extensions and related topics

13B02 Extension theory
13B05 Galois theory
13B10 Automorphisms and derivations
13B15 Ramification theory
13B20 Integral dependence; integral closure; integrally closed rings, related rings (Japanese, etc.)
13B25 Polynomials over commutative rings
13B30 Quotients and localization
13B99 None of the above, but in this section

13Cxx Theory of modules and ideals
13C05 Structure, classification theorems
13C10 Projective and free modules and ideals [See also 18G05.]
13C11 Injective and flat modules and ideals [See also 18G05.]
13C12 Torsion modules and ideals
13C13 Other special types
13C15 Dimension theory, depth, related rings (catenary, etc.)
13C99 None of the above, but in this section

13Dxx Homological methods
13D03 Cohomology of commutative rings and algebras
13D05 Homological dimension
13D10 Deformations and infinitesimal methods [See also 14D15, 16A58, 32Gxx.]
13D15 Grothendieck group, K-theory [See also 14F15, 18F25, 18F30.]
13D25 Complexes [See also 14Mxx.]
13D30 Torsion theory [See also 13C12, 16A63, 18E40.]
13D99 None of the above, but in this section

13Exx Chain conditions, finiteness conditions
13E05 Noetherian rings and modules
13E10 Artinian rings and modules, finite-dimensional algebras
13E15 Rings and modules of finite generation or representation
13E99 None of the above, but in this section

13Fxx Arithmetic rings [See also 12–XX.]
13F05 Dedekind and Prüfer rings and their generalizations
13F07 Euclidean rings and generalizations
13F10 Principal ideal rings
13F15 Factorial rings, unique factorization domains
13F20 Polynomial rings [See also 10M05.]
13F25 Formal power series rings
13F30 Discrete valuation rings
13F99 None of the above, but in this section

13G05 Integral domains

13Hxx Local rings and semilocal rings
13H05 Regular local rings
13H10 Special types (Macaulay, Gorenstein, etc.)
13H15 Multiplicity theory and related topics
13H99 None of the above, but in this section

13Jxx Topological rings [See also 16A80.]
13J05 Power series rings
13J10 Complete rings
13J15 Henselian rings
13J20 Global topological rings
13J25 Ordered rings [See also 06F25, 16A86.]
13J99 None of the above, but in this section

13K05 Witt vectors and related rings

13L05 Applications of logic to commutative algebra [See also 03Cxx, 03Hxx.]

13Mxx Finite commutative rings {For number-theoretic aspects, see 12Cxx.}
13M05 Structure
13M10 Polynomials
13M99 None of the above, but in this section

13N05 Differential algebra [See also 12H05.]

14–XX ALGEBRAIC GEOMETRY

14–01 Elementary exposition, textbooks
14–02 Advanced exposition (research surveys, monographs, etc.)
14–03 Historical (must also be assigned at least one classification number from Section 01)
14–04 Explicit machine computation and programs (not the theory of computation or programming)
14–06 Proceedings, conferences, etc.

14Axx Foundations
14A05 Relevant commutative algebra [See also 13–XX.]
14A10 Varieties
14A15 Schemes
14A20 Generalizations (algebraic spaces, motifs)
14A25 Elementary questions
14A99 None of the above, but in this section

14Bxx Local theory [See also 32Bxx.]
14B05 Singularities [See also 14E15, 32B30, 32C40, 58C27.]
14B07 Deformations of singularities [See also 14D15, 32C40, 32G05, 32G11, 32G13.]
14B10 Infinitesimal methods
14B12 Local deformation theory, Artin approximation, etc.
14B15 Local cohomology [See also 32C36.]
14B20 Formal neighborhoods
14B25 Local structure of maps: étale, flat, etc. [See also 13–XX, 14E40.]
14B99 None of the above, but in this section

14Cxx Cycles and subschemes
14C05 Parametrization (Chow and Hilbert schemes)
14C10 Equivalence relations
14C15 Rational equivalence rings
14C17 Intersection theory
14C20 Divisors, linear systems
14C21 Webs, nets [See also 53A60.]
14C22 Picard groups
14C25 Zero-cycles
14C30 Transcendental methods, Hodge theory [See also 32J25.]
14C35 Applications of methods of algebraic K-theory [See also 14F05, 18F25.]
14C40 Riemann-Roch theorems [See also 14F12.]
14C99 None of the above, but in this section

14Dxx Families, fibrations
14D05 Structure of families (Picard-Lefschetz, Picard-Fuchs theory, etc.)
14D10 Arithmetic ground fields (finite, local, global)
14D15 Formal methods; deformations [See also 13D10, 14B07, 16A58, 32Gxx.]
14D20 Algebraic moduli problems {For analytic moduli problems, see 32G13.}
14D22 Fine structure of moduli spaces
14D25 Geometric invariants [See also 14L30.]
14D99 None of the above, but in this section

14Exx Mappings and correspondences
14E05 Rational maps, birational correspondences
14E07 Structure of Cremona group and generalizations
14E10 General correspondences
14E15 Global theory of singularities, resolution [See also 14B05, 32C45.]
14E20 Coverings, fundamental group
14E22 Ramification problems [See also 12B10.]
14E25 Imbeddings
14E30 Minimal models
14E35 Results in dimension $\leqslant 3$
14E40 Local structure of maps: étale, flat, etc. [See also 13–XX, 14B25.]
14E99 None of the above, but in this section

14Fxx Cohomology theory [See also 13Dxx.]
14F05 Vector bundles, sheaves, related constructions [See also 18F20, 46M20.]
14F07 Weierstrass points in one and several variables; gap sheaves
14F10 Differentials and other special sheaves
14F12 Riemann-Roch problems [See mainly 14C40, also 32L10, 57R20.]
14F15 Serre cohomology, K-theory [See also 13D15, 18F25.]
14F20 Grothendieck cohomology and topology [See also 18F10.]
14F25 Classical real and complex cohomology
14F30 p-adic cohomology, crystalline cohomology
14F35 Homotopy theory
14F40 de Rham cohomology [See also 14C30, 32C35, 32L10.]
14F45 Topological properties
14F99 None of the above, but in this section

14Gxx Special ground fields, arithmetic problems {For complex multiplication, see 10D25, 14K22. For automorphic and modular functions and forms, see also 10Dxx, 14K15.}
14G05 Rationality questions

14G10 Zeta functions and related questions [See also 12A70, 12B30.]
14G13 Weil-Tate conjectures [See also 14Cxx.]
14G15 Finite ground fields
14G20 p-adic ground fields (local fields)
14G25 Global ground fields
14G30 Real ground fields [See also 32C05. Must also be assigned at least one other number referring to the specific type of problem considered.]
14G99 None of the above, but in this section

14Hxx Curves
14H05 Algebraic functions [See also 14K20, 32G20.]
14H10 Families, moduli (algebraic)
14H15 Families, moduli (analytic) [See also 30F10, 32G15, 32G20.]
14H20 Singularities, local rings [See also 13Hxx.]
14H25 Arithmetic ground fields [See also 10Bxx, 14Gxx.]
14H30 Coverings, fundamental group
14H35 Correspondences [See also 14Exx.]
14H40 Jacobians [See also 32G20.]
14H45 Special curves
14H99 None of the above, but in this section

14Jxx Surfaces and higher-dimensional varieties
14J05 Picard group
14J10 Families, moduli, classification: algebraic theory
14J15 Moduli, classification: analytic theory [See also 32J15.]
14J17 Singularities of surfaces
14J20 Arithmetic ground fields [See also 10Bxx, 14Gxx.]
14J25 Special surfaces
14J30 Special 3-folds [See also 14E05.]
14J35 Special 4-folds [See also 14E05.]
14J40 Special n-folds
14J99 None of the above, but in this section

14Kxx Abelian varieties and schemes
14K05 Algebraic theory
14K07 Elliptic curves, one-dimensional theory [See also 14H50.]
14K10 Algebraic moduli, classification
14K15 Arithmetic ground fields [See also 10Bxx, 10Dxx, 14Gxx.]
14K20 Analytic theory; abelian integrals and differentials
14K22 Complex multiplication [See also 10D25.]
14K25 Theta functions
14K30 Picard schemes, higher Jacobians
14K99 None of the above, but in this section

14Lxx Group schemes {For linear algebraic groups, see 20Gxx. For Lie algebras, see 17B45.}
14L05 Formal groups, p-divisible groups [See also 17B50.]
14L10 Group varieties
14L15 Group schemes
14L17 Affine algebraic groups, hyperalgebra constructions [See also 17B45, 18D35.]
14L20 Finite group schemes
14L25 Pro-algebraic group schemes
14L30 Group actions on varieties or schemes [See also 14D25.]
14L35 Classical groups (geometric aspects)
14L40 Other algebraic groups (geometric aspects)
14L99 None of the above, but in this section

14Mxx Special varieties
14M05 Varieties defined by ring conditions (factorial, Macaulay)
14M07 Low-codimension problems [See also 14Cxx.]
14M10 Complete intersections
14M12 Determinantal varieties
14M15 Grassmannians, Schubert varieties [See also 51M35.]
14M17 Homogeneous spaces [See also 32M10, 53C30, 57T15.]
14M20 Rational varieties
14M99 None of the above, but in this section

14Nxx Classical methods and problems [See also 51–XX.]
14N05 Projective techniques
14N10 Enumerative problems
14N99 None of the above, but in this section

15–XX LINEAR AND MULTILINEAR ALGEBRA; MATRIX THEORY (finite and infinite)

15–01 Elementary exposition, textbooks
15–02 Advanced exposition (research surveys, monographs, etc.)
15–03 Historical (must also be assigned at least one classification number from Section 01)
15–04 Explicit machine computation and programs (not the theory of computation or programming)
15–06 Proceedings, conferences, etc.
15A03 Vector spaces, linear dependence, rank
15A04 Linear transformations, semilinear transformations
15A06 Linear equations
15A09 Matrix inversion, generalized inverses
15A12 Conditioning of matrices [See also 65F35.]
15A15 Determinants, permanents, other special matrix functions
15A18 Eigenvalues, singular values, and eigenvectors
15A21 Canonical forms, reductions, classification
15A23 Factorization of matrices
15A24 Matrix equations and identities
15A27 Commutativity
15A30 Algebraic systems of matrices [See also 16A42, 20Gxx, 20Hxx.]
15A33 Matrices over special rings (quaternions, finite fields, etc.)
15A36 Matrices of integers [See also 10M20.]
15A39 Linear inequalities
15A42 Inequalities involving eigenvalues and eigenvectors
15A45 Miscellaneous inequalities involving matrices
15A48 Positive matrices and their generalizations
15A51 Stochastic matrices
15A52 Random matrices
15A54 Matrices over function rings in one or more variables
15A57 Other types of matrices (Hermitian, skew-Hermitian, etc.)
15A60 Norms of matrices, numerical range, applications of functional analysis to matrix theory [See also 65F35, 65J05.]
15A63 Quadratic and bilinear forms, inner products [See mainly 10Cxx.]
15A66 Clifford algebras
15A69 Multilinear algebra, tensor products
15A72 Vector and tensor algebra, theory of invariants
15A75 Exterior algebra, Grassmann algebras
15A78 Other algebras built from modules
15A90 Applications to physics
15A99 Miscellaneous topics

16–XX ASSOCIATIVE RINGS AND ALGEBRAS {For the commutative case, see 13–XX.}

16–01 Elementary exposition, textbooks
16–02 Advanced exposition (research surveys, monographs, etc.)
16–03 Historical (must also be assigned at least one classification number from Section 01)
16–04 Explicit machine computation and programs (not the theory of computation or programming)
16–06 Proceedings, conferences, etc.
16A02 Integral domains, unique factorization domains (noncommutative)
16A03 Graded algebras, rings and modules
16A04 Noncommutative principal ideal rings, rings with a division algorithm
16A05 Skew polynomial rings, power series rings
16A06 Free algebras, free ideal rings (firs) and their generalizations [See also tensor algebra in 15A72.]
16A08 Rings of quotients, noncommutative localization
16A10 Noncommutative local rings
16A12 Prime and semiprime rings
16A14 Noncommutative analogues of Dedekind and Prüfer domains
16A15 Other generalizations of commutative rings {For commutativity theorems, see 16A70.}
16A16 Separable algebras, Azumaya algebras and their generalizations [See also 12Gxx, 13A20.]
16A18 Orders, arithmetic in algebras [See also 12A80, 12B35.]
16A19 Simple non-Artinian rings
16A20 Primitive and semiprimitive rings
16A21 Radical theory
16A22 Nil, nilpotent and radical rings
16A24 Hopf algebras, algebraic theory [See also 57T05.]

16A25 Structure of groups of units of rings
16A26 Group rings of finite groups [See also 20C05; for semigroup rings, see 20M25.]
16A27 Group rings of infinite groups [See also 20C07; for semigroup rings, see 20M25.]
16A28 Rings with involution [See also 46Kxx.]
16A30 von Neumann regular rings and their generalizations [See also 06Cxx, 06Exx.]
16A32 Idempotents in rings [See also 06Exx.]
16A33 Noetherian rings
16A34 Rings with annihilator conditions, chain conditions (Goldie rings)
16A35 Artinian rings
16A36 Frobenius algebras, quasi-Frobenius rings and their generalizations
16A38 Rings with polynomial identity
16A39 Skew fields [See also 12E15.], division rings
16A40 Simple and semisimple Artinian rings
16A42 Rings of linear transformations, matrix rings, infinite matrix rings [See also 15A30.]
16A44 Finite rings [See also 12Cxx, 13Mxx.]
16A45 Other types of rings and algebras
16A46 Finite-dimensional algebras
16A48 Structure, classification
16A49 Duality theory
16A50 Projective and flat modules and generalizations
16A51 Perfect, semiperfect rings and modules and their generalizations
16A52 Injective modules, self-injective rings and generalizations
16A53 Special types of modules
16A54 Grothendieck groups of rings, K-theory of noncommunative rings [See also 18F25, 18F30.]
16A55 Dimension theory (Krull, Gabriel)
16A56 Extension theory
16A58 Deformation theory of rings and algebras [See also 13D10, 14D15, 32Gxx.]
16A60 Homological dimension
16A61 Cohomology of algebras and rings
16A62 Homological methods
16A63 Torsion theories [See also 13D30, 18E40.]
16A64 Modules and representations
16A65 Endomorphism rings
16A66 Ideal theory, prime ideals and their generalizations
16A68 Lie, Jordan and other nonassociative structures on associative rings
16A70 Commutativity theorems
16A72 Automorphisms, derivations, other morphisms
16A74 Galois theory
16A76 Near-rings [See also 12K05.]
16A78 Semirings and other generalizations of rings
16A80 Topological rings and modules [See also 13Jxx.]
16A86 Ordered rings [See also 06F25.]
16A89 Equivalence of module categories
16A90 Categorical methods and categorical ring theory
16A99 Miscellaneous topics

17–XX NONASSOCIATIVE RINGS AND ALGEBRAS

17–01 Elementary exposition, textbooks
17–02 Advanced exposition (research surveys, monographs, etc.)
17–03 Historical (must also be assigned at least one classification number from Section 01)
17–04 Explicit machine computation and programs (not the theory of computation or programming)
17–06 Proceedings, conferences, etc.

17Axx General nonassociative rings
17A01 General theory
17A05 Power-associative
17A10 Commutative power-associative
17A15 Noncommutative Jordan algebras
17A20 Flexible algebras
17A25 Nodal algebras
17A30 Algebras satisfying other identities
17A35 Division algebras
17A40 Ternary compositions
17A42 Other n-ary compositions
17A45 Quadratic algebras (not quadratic Jordan algebras)
17A50 Free algebras
17A60 Structure theory in general nonassociative rings
17A65 Radical theory in general nonassociative rings
17A70 Super algebras
17A99 None of the above, but in this section

17Bxx Lie algebras {For Lie groups, see 22Exx.}
17B05 Structure theory
17B10 Representations, algebraic theory (weights)
17B15 Representations, analytic theory
17B20 Simple, semisimple, reductive algebras (roots)
17B25 Exceptional algebras
17B30 Solvable, nilpotent algebras
17B35 Universal enveloping algebras, imbeddings
17B40 Automorphisms, derivations, other operators
17B45 Lie algebras of linear algebraic groups [See also 14Lxx and 20Gxx.]
17B50 Modular Lie algebras
17B55 Homological methods in Lie algebras
17B56 Cohomology of Lie algebras
17B60 Lie rings associated with other structures (associative, Jordan, etc.) [See also 15A30, 16A68, 17C40, 17C50.]
17B65 Infinite-dimensional Lie algebras [See also 22E65.]
17B70 Graded Lie algebras
17B99 None of the above, but in this section

17Cxx Jordan algebras (commutative)
17C05 Identities
17C10 Structure theory
17C15 Representations
17C20 Simple, semisimple algebras
17C25 Universal enveloping algebras
17C30 Automorphisms, derivations, other operators
17C35 Formally real domains of positivity [See also 32Nxx.]
17C40 Exceptional Jordan algebras and associated Lie groups
17C45 Homological methods in Jordan algebras
17C46 Cohomology of Jordan algebras
17C50 Jordan rings associated with other structures [See also 16A68, 17B60.]
17C65 Infinite-dimensional Jordan algebras
17C99 None of the above, but in this section

17Dxx Other nonassociative rings and algebras
17D05 Alternative rings
17D10 Mal'cev rings
17D99 None of the above, but in this section

18–XX CATEGORY THEORY, HOMOLOGICAL ALGEBRA

18–01 Elementary exposition, textbooks
18–02 Advanced exposition (research surveys, monographs, etc.)
18–03 Historical (must also be assigned at least one classification number from Section 01)
18–04 Explicit machine computation and programs (not the theory of computation or programming)
18–06 Proceedings, conferences, etc.

18Axx General theory of categories and functors
18A05 Definitions, generalizations
18A10 Graphs, diagram schemes, precategories, neocategories [See also 20Lxx.]
18A15 Foundations, relations to logic and deductive systems [See also 03–XX.]
18A20 Epimorphisms, monomorphisms, special classes of morphisms, null morphisms, factorization (bicategories)
18A22 Special properties of functors (faithful, full, etc.)
18A23 Natural morphisms, dinatural morphisms
18A25 Functor categories, comma categories
18A30 Limits and colimits (products, sums, directed limits, pushouts, fiber products, equalizers, kernels, ends and coends, etc.)
18A32 Factorization of morphisms (via images, coimages, dominions, codominions), substructures, quotient structures, congruences, amalgams
18A35 Categories admitting limits (complete categories), functors commuting with limits, continuous functors, completions

18A40 Adjoint functors (representable functors, universal constructions, reflective subcategories, reflections, etc.), constructions of adjoints (Kan extensions, etc.)
18A99 None of the above, but in this section

18Bxx Special categories
18B05 Category of sets, characterizations [See also 03–XX.]
18B10 Category of relations, additive relations
18B15 Imbedding theorems, universal categories [See also 18E20.]
18B20 Categories of machines, automata, operative categories [See also 03D05, 68Dxx, 68F10.]
18B25 Topoi [See also 03G25.]
18B30 Categories of topological spaces and continuous mappings [See also 54–XX.]
18B35 Preorders, orders and lattices (viewed as categories) [See also 06–XX.]
18B40 Groupoids, semigroupoids, semigroups, groups (viewed as categories) [See also 20Axx, 20Lxx, 20Mxx.]
18B99 None of the above, but in this section

18Cxx Categories and algebraic theories
18C05 Equational categories [See also 03–XX, 08C05.]
18C10 Theories (e.g. algebraic theories), structure, and semantics [See also 03–XX.]
18C15 Triples (= standard construction, monad or triad), algebras for a triple, homology and derived functors for triples [See also 18Gxx.]
18C20 Algebras and Kleisli categories associated with monads
18C99 None of the above, but in this section

18Dxx Categories with structure
18D05 Double categories, 2-categories, bicategories, hypercategories
18D10 Monoidal categories (= multiplicative categories)
18D15 Closed categories (closed monoidal and Cartesian closed categories, etc.)
18D20 Enriched categories (over closed or monoidal categories)
18D25 Strong functors, strong adjunctions
18D30 Fibered categories
18D35 Structured objects in a category (group objects, etc.)
18D99 None of the above, but in this section

18Exx Abelian categories
18E05 Preadditive, additive categories
18E10 Exact categories, abelian categories
18E15 Grothendieck categories
18E20 Imbedding theorems [See also 18B15.]
18E25 Derived functors and satellites
18E30 Derived categories, triangulated categories
18E35 Localization of categories
18E40 Torsion theories, radicals [See also 13D30, 16A63.]
18E99 None of the above, but in this section

18Fxx Categories and geometry
18F05 Local categories and functors
18F10 Grothendieck topologies [See also 14F20.]
18F15 Abstract manifolds and fiber bundles [See also 55Rxx, 57Pxx.]
18F20 Presheaves and sheaves [See also 14F05, 32C35, 32L10, 54B40, 55N30.]
18F25 Algebraic K-theory and L-theory [See also 10Cxx, 12–XX, 13D15, 14Cxx, 16A54, 57R65, 57R67.]
18F30 Grothendieck groups [See also 13D15, 16A54.]
18F99 None of the above, but in this section

18Gxx Homological algebra [See also 55Uxx.]
18G05 Projectives and injectives [See also 13C10, 13C11, 16A50, 16A52.]
18G10 Resolutions; derived functors [See also 18E25.]
18G15 Ext and Tor, generalizations, Künneth formula [See also 55U25.]
18G20 Homological dimension [See also 13Dxx, 16A60, 16A62.]
18G25 Relative homological algebra, projective classes
18G30 Simplicial sets, simplicial objects (in a category) [See also 55U10.]
18G35 Chain complexes [See also 18E30, 55U15.]
18G40 Spectral sequences, hypercohomology [See also 55Txx.]
18G50 Nonabelian homological algebra
18G55 Nonabelian homotopical algebra
18G99 None of the above, but in this section

20–XX GROUP THEORY AND GENERALIZATIONS

20–01 Elementary exposition, textbooks
20–02 Advanced exposition (research surveys, monographs, etc.)
20–03 Historical (must also be assigned at least one classification number from Section 01)
20–04 Explicit machine computation and programs (not the theory of computation or programming)
20–06 Proceedings, conferences, etc.

20Axx Foundations
20A05 Axiomatics and elementary properties
20A10 Metamathematical considerations (For word problems, see 20F10.)
20A15 Applications of logic to group theory
20A99 None of the above, but in this section

20Bxx Permutation groups
20B05 General theory for finite groups
20B07 General theory for infinite groups
20B10 Characterization theorems
20B15 Uniprimitive groups
20B20 Multiply transitive finite groups
20B22 Multiply transitive infinite groups
20B25 Finite automorphism groups of algebraic, geometric, or combinatorial structures [See also 05Bxx, 12F10, 20G40, 20H30, 51–XX.]
20B27 Infinite automorphism groups [See also 12F10.]
20B30 Symmetric groups, general
20B35 Subgroups of symmetric groups
20B99 None of the above, but in this section

20Cxx Representation theory of groups
20C05 Group rings of finite groups and their modules [See also 16A26.]
20C07 Group rings of infinite groups and their modules [See also 16A27.]
20C10 Integral representations of finite groups
20C11 p-adic representations of finite groups
20C12 Integral representations of infinite groups
20C15 Ordinary representations and characters
20C20 Modular representations and characters
20C25 Projective representations and multipliers
20C30 Representations of finite symmetric groups and other special finite groups
20C32 Representations of infinite symmetric groups and other special infinite groups
20C35 Applications to physics
20C99 None of the above, but in this section

20Dxx Abstract finite groups
20D05 Classification of simple and nonsolvable groups
20D06 Simple groups: alternating and classical groups [See also 20Gxx, 22Exx.]
20D08 Simple groups: sporadic groups
20D10 Solvable groups, theory of formations, π-length, ranks, factorable groups, p-groups
20D15 Nilpotent groups, p-groups
20D20 Sylow subgroups, Sylow properties, π-groups, π-structure
20D25 Special subgroups (Frattini, Fitting, etc.)
20D30 Series and lattices of subgroups
20D35 Subnormal subgroups
20D40 Products of subgroups
20D45 Automorphisms
20D50 Covering of subgroups
20D60 Arithmetic and combinatorial problems
20D99 None of the above, but in this section

20Exx Structure and classification of infinite or finite groups
20E05 Free nonabelian groups
20E06 Free products, free products with amalgamation, Higman-Neumann-Neumann extensions, and generalizations
20E07 Subgroup theorems
20E10 Varieties of groups

20E15 Chains and lattices of subgroups, subnormal subgroups [See also 20F22.]
20E18 Limits, profinite groups
20E22 Extensions, wreath products, and other compositions
20E25 Local properties
20E26 Residual properties and generalizations
20E28 Maximal subgroups, minimal subgroups
20E32 Simple groups [See also 20D05.]
20E34 General structure theorems
20E36 General theorems concerning automorphisms of groups
20E99 None of the above, but in this section

20Fxx Special aspects of infinite or finite groups
20F05 Generators, relations, and presentations
20F06 Cancellation theory
20F10 Word problems, other decision problems, connections with logic and automata [See also 03D05, 03D40, 06B25, 08A50, 68Dxx, 68F10.]
20F12 Commutator calculus
20F14 Derived series, central series, and generalizations
20F16 Solvable groups, supersolvable groups
20F18 Nilpotent groups
20F19 Generalizations of solvable and nilpotent groups
20F22 Other classes of groups defined by subgroup chains
20F24 FC-groups and their generalizations
20F26 Special subgroups
20F28 Automorphism groups of groups [See also 20E36.]
20F29 Representations of groups as automorphism groups of algebraic systems
20F32 Geometric group theory [See also 05C25, 20Exx, 20Gxx.]
20F34 Fundamental groups and their automorphisms [See also 57M05, 57Sxx.]
20F36 Braid groups
20F38 Other groups related to topology or analysis
20F40 Associated Lie structures
20F45 Engel conditions
20F50 Periodic groups
20F60 Ordered groups [See mainly 06F15.]
20F99 None of the above, but in this section

20Gxx Linear algebraic groups (classical groups) {For arithmetic theory, see 10C30, 10E45; for geometric theory, see 14Lxx, 22Exx; for other methods in representation theory, see 22E45, 22E46, 22E47, 22E50, 22E55.}
20G05 Representation theory
20G10 Cohomology theory
20G15 Linear algebraic groups over arbitrary fields
20G20 Linear algebraic groups over the reals, the complexes, the quaternions
20G25 Linear algebraic groups over local fields and their integers
20G30 Linear algebraic groups over global fields and their integers
20G35 Linear algebraic groups over adèles and other rings and schemes
20G40 Linear algebraic groups over finite fields
20G45 Applications to physics; explicit representations
20G99 None of the above, but in this section

20Hxx Other groups of matrices
20H05 Unimodular groups, congruence subgroups [See also 10D07, 22E40, 51F20.]
20H10 Fuchsian groups and their generalizations [See also 10D07, 22E40, 30F35, 32Nxx.]
20H15 Other geometric groups, including crystallographic groups [See also 51–XX, especially 51F15.]
20H20 Other matrix groups over fields
20H25 Other matrix groups over rings
20H30 Other matrix groups over finite fields
20H99 None of the above, but in this section

20Jxx Connections with homological algebra and category theory
20J05 Homological methods in group theory
20J06 Cohomology of finite groups
20J10 Groups arising as cohomology groups
20J15 Category of groups
20J99 None of the above, but in this section

20Kxx Abelian groups
20K01 Finite abelian groups
20K05 Finitely generated groups
20K10 Torsion groups, primary groups and generalized primary groups
20K12 Ulm sequences
20K15 Torsion free groups, finite rank
20K20 Torsion free groups, infinite rank
20K21 Mixed groups
20K25 Direct sums, direct products, etc.
20K26 Indecomposable groups
20K27 Subgroups
20K30 Automorphisms, homomorphisms, endomorphisms, etc.
20K35 Extensions
20K40 Homological and categorical methods
20K45 Topological methods
20K99 None of the above, but in this section

20Lxx Groupoids (small categories in which all morphisms are isomorphisms)
20L05 General theory
20L10 Connections with group theory
20L13 Mappings of groupoids
20L15 Connections with topology
20L17 Connections with category theory
20L99 None of the above, but in this section

20Mxx Semigroups
20M05 Free semigroups, generators and relations, word problem
20M07 Varieties of semigroups
20M10 General structure theory
20M11 Radical theory
20M12 Ideal theory
20M14 Commutative semigroups
20M15 Mappings of semigroups
20M20 Semigroups of transformations, etc. [See also 47D05, 47H20, 54H15.]
20M25 Semigroup rings, multiplicative semigroups of rings
20M30 Representation of semigroups
20M35 Semigroups in automata theory, linguistics, etc. [See also 03D05, 68D30, 68Fxx.]
20M50 Connections with homological algebra and category theory
20M99 None of the above, but in this section

20Nxx Other generalizations of groups
20N05 Loops, quasigroups [See also 05Bxx.]
20N07 Mappings of loops
20N10 Ternary systems (heaps, semiheaps, heapoids, etc.)
20N15 *n*-ary systems
20N99 None of the above, but in this section

20P05 Probability methods in group theory

22–XX TOPOLOGICAL GROUPS, LIE GROUPS {For transformation groups, see 54H15, 57Sxx, 58–XX. For abstract harmonic analysis, see 43–XX.}

22–01 Elementary exposition, textbooks
22–02 Advanced exposition (research surveys, monographs, etc.)
22–03 Historical (must also be assigned at least one classification number from Section 01)
22–04 Explicit machine computation and programs (not the theory of computation or programming)
22–06 Proceedings, conferences, etc.

22Axx Topological algebraic systems {For topological rings and fields, see 12Jxx, 13Jxx, 16A80; for dual spaces of operator algebras and topological groups, see 47D35.}
22A05 Structure of general topological groups
22A10 Analysis on general topological groups
22A15 Structure of topological semigroups
22A20 Analysis on topological semigroups
22A25 Representations of general topological groups and semigroups
22A26 Topological semilattices, lattices and applications [See also 06B30, 06F30.]

22A30 Other topological algebraic systems and their representations
22A99 None of the above, but in this section

22Bxx Locally compact abelian (LCA) groups
22B05 General properties and structure of LCA groups
22B10 Structure of group algebras of LCA groups
22B99 None of the above, but in this section

22C05 Compact groups

22Dxx Locally compact groups and their algebras
22D05 General properties and structure of locally compact groups
22D10 Unitary representations of locally compact groups
22D12 Other representations of locally compact groups
22D15 Group algebras of locally compact groups
22D20 Representations of group algebras
22D25 C^*-algebras and W^*-algebras arising from group representations [See also 46Lxx.]
22D30 Induced representations
22D35 Duality theorems
22D40 Ergodic theory on groups [See also 28Dxx and 43A60.]
22D45 Automorphism groups of locally compact groups
22D99 None of the above, but in this section

22Exx Lie groups {For the topology of Lie groups and homogeneous spaces, see 57Sxx, 57Txx; for analysis thereon, see 43A80, 43A85, 43A90.}
22E05 Local Lie groups [See also 34–XX, 35–XX, 58H05.]
22E10 General properties and structure of complex Lie groups [See also 32M05.]
22E15 General properties and structure of real Lie groups
22E20 General properties and structure of other Lie groups
22E25 Nilpotent and solvable Lie groups
22E27 Representations of nilpotent and solvable Lie groups (special orbital integrals, non-Type I representations, etc.)
22E30 Analysis on real and complex Lie groups [See also 33A75, 43–XX.]
22E35 Analysis on p-adic Lie groups [See also 12A85.]
22E40 Discrete subgroups of Lie groups [See also 20Hxx and 32Nxx.]
22E41 Continuous cohomology [See also 57R32, 57Txx, 58H10.]
22E43 Structure and representation of the Lorentz group
22E45 Representations of Lie and linear algebraic groups over real fields: analytic methods {For the purely algebraic theory, see 20G05.}
22E46 Semi-simple Lie groups and their representations
22E47 Representations of Lie and real algebraic groups: algebraic methods (Verma modules, etc.) [See also 17B35.]
22E50 Representations of Lie and linear algebraic groups over local fields
22E55 Representations of Lie and linear algebraic groups over global fields and adèle rings [See also 20G05.]
22E60 Lie algebras of Lie groups {For the algebraic theory of Lie algebras, see 17Bxx.}
22E65 Infinite-dimensional Lie groups and their Lie algebras [See also 17B65, 58B25, 58H05.]
22E70 Applications of Lie groups to physics; explicit representations [See also 81C40, 81Gxx.]
22E99 None of the above, but in this section

26–XX REAL FUNCTIONS [See also 54C30.]

26–01 Elementary exposition, textbooks
26–02 Advanced exposition (research surveys, monographs, etc.)
26–03 Historical (must also be assigned at least one classification number from Section 01)
26–04 Explicit machine computation and programs (not the theory of computation or programming)
26–06 Proceedings, conferences, etc.

26Axx Functions of one variable
26A03 Foundations: limits and generalizations, elementary topology of the line
26A06 One-variable calculus
26A09 Elementary functions
26A12 Rate of growth of functions, orders of infinity, slowly increasing functions [See also 26A48.]
26A15 Continuity and related questions (modulus of continuity, semicontinuity, discontinuities, etc.) {For properties determined by Fourier coefficients, see 42A16; for those determined by approximation properties, see 41A25.}
26A16 Lipschitz (Hölder) classes
26A18 Iteration [See also 39B10, 47H10, 54H25.]
26A21 Classification of real functions; Baire classification of sets and functions [See also 04A15, 28A05, 54C50.]
26A24 Differentiation (functions of one variable): general theory, generalized derivatives, mean-value theorems [See also 28A15.]
26A27 Nondifferentiability (nondifferentiable functions, points of nondifferentiability), discontinuous derivatives
26A30 Singular functions, Cantor functions, functions with other special properties
26A33 Fractional derivatives and integrals
26A36 Antidifferentiation
26A39 Denjoy and Perron integrals, other special integrals
26A42 Integrals of Riemann, Stieltjes and Lebesgue type [See also 28–XX.]
26A45 Functions of bounded variation, generalizations
26A46 Absolutely continuous functions
26A48 Monotonic functions, generalizations
26A51 Convexity, generalizations
26A99 None of the above, but in this section

26Bxx Functions of several variables
26B05 Continuity and differentiation questions
26B10 Implicit function theorems, Jacobians, transformations with several variables
26B12 Calculus of vector functions
26B15 Integration: length, area, volume [See also 28A75, 51M25.]
26B20 Integral formulas (Stokes, Gauss, Green, etc.)
26B25 Convexity, generalizations
26B30 Absolutely continuous functions, functions of bounded variation
26B35 Special properties of functions of several variables, Hölder conditions, etc.
26B40 Representation and superposition of functions
26B99 None of the above, but in this section

26Cxx Polynomials, rational functions
26C05 Polynomials: analytic properties, inequalities, etc.
26C10 Polynomials: location of zeros [See also 12D10, 30C15, 65H05.]
26C15 Rational functions [See also 14G30.]
26C99 None of the above, but in this section

26Dxx Inequalities {For maximal function inequalities, see 42B25; for functional inequalities, see 39C05.}
26D05 Inequalities for trigonometric functions and polynomials
26D10 Inequalities involving derivatives and differential and integral operators
26D15 Inequalities for sums, series and integrals
26D20 Other analytical inequalities
26D99 None of the above, but in this section

26Exx Miscellaneous topics [See also 58Cxx.]
26E05 Real-analytic functions
26E10 C^∞-functions, quasi-analytic functions
26E15 Calculus of functions on infinite-dimensional spaces
26E20 Calculus of functions taking values in infinite-dimensional spaces
26E25 Set-valued functions [See also 54C60.]
26E30 Non-Archimedean analysis [See also 12J25.]
26E35 Nonstandard analysis [See also 03H05.]
26E99 None of the above, but in this section

28–XX MEASURE AND INTEGRATION {For analysis on manifolds, see 58–XX.}

28–01 Elementary exposition, textbooks
28–02 Advanced exposition (research surveys, monographs, etc.)
28–03 Historical (must also be assigned at least one classification number from Section 01)
28–04 Explicit machine computation and programs (not the theory of computation or programming)
28–06 Proceedings, conferences, etc.

28Axx Classical measure theory
- 28A05 Classes of sets (Borel fields, σ-rings, etc.), measurable sets, Suslin sets, analytic sets [See also 04A15, 26A21, 54H05.]
- 28A10 Real- or complex-valued set functions
- 28A12 Contents, measures, outer measures, capacities
- 28A15 Abstract differentiation theory, differentiation of set functions [See also 26A24.]
- 28A20 Measurable and nonmeasurable functions, sequences of measurable functions, modes of convergence
- 28A25 Integration with respect to measures and other set functions
- 28A33 Spaces of measures, convergence of measures [See also 46E27, 60Bxx.]
- 28A35 Measures and integrals in product spaces
- 28A50 Integration and disintegration of measures
- 28A51 Lifting theory [See also 46G15.]
- 28A60 Measures on Boolean rings, measure algebras [See also 54H10.]
- 28A75 Length, area, volume, other geometric measure theory [See also 26B15, 49F20.]
- 28A99 None of the above, but in this section

28Bxx Measures and integrals with values in abstract spaces
- 28B05 Vector-valued measures and integrals [See also 46G10.]
- 28B10 Group- or semigroup-valued measures and integrals
- 28B15 Measures and integrals with values in general ordered systems
- 28B20 Set-valued measures; integration of set-valued functions; measurable selections [See also 54C60, 54C65.]
- 28B99 None of the above, but in this section

28Cxx Measures on spaces with additional structure [See also 46G12, 58C35, 58D20.]
- 28C05 Integration theory via linear functionals (Radon measures, Daniell integrals, etc.), representing measures
- 28C10 Measures on topological groups, Haar measures, invariant measures [See also 43A05.]
- 28C15 Measures on topological spaces (regularity of measures, etc.)
- 28C20 Measures and integrals in function spaces (Wiener measure, Gauss measure, etc.) [See also 58D20, 60B11.]
- 28C99 None of the above, but in this section

28Dxx Measure-theoretic ergodic theory [See also 22D40, 47A35, 54H20, 58Fxx, 60Fxx, 60G10.]
- 28D05 Measure-preserving transformations
- 28D10 One-parameter continuous families of measure-preserving transformations
- 28D15 General groups of measure-preserving transformations
- 28D20 Entropy and other invariants
- 28D99 None of the above, but in this section

30–XX FUNCTIONS OF A COMPLEX VARIABLE (For analysis on manifolds, see 58–XX.)
- 30–01 Elementary exposition, textbooks
- 30–02 Advanced exposition (research surveys, monographs, etc.)
- 30–03 Historical (must also be assigned at least one classification number from Section 01)
- 30–04 Explicit machine computation and programs (not the theory of computation or programming)
- 30–06 Proceedings, conferences, etc.

30Axx General properties
- 30A05 Monogenic properties of complex functions (including polygenic and areolar monogenic functions)
- 30A10 Inequalities in the complex domain
- 30A99 None of the above, but in this section

30Bxx Series expansions
- 30B10 Power series (including lacunary series)
- 30B20 Random power series
- 30B30 Boundary behavior of power series, over-convergence
- 30B40 Analytic continuation
- 30B50 Dirichlet series and other series expansions, exponential series [See also 40–XX, 41–XX, 42–XX.]
- 30B60 Completeness problems, closure of a system of functions
- 30B70 Continued fractions [See also 10A32, 40A15.]
- 30B99 None of the above, but in this section

30Cxx Geometric function theory
- 30C10 Polynomials
- 30C15 Zeros of polynomials, rational functions, and other analytic functions (e.g. zeros of functions with bounded Dirichlet integral) (For algebraic theory, see 12D10; for real methods, see 26C10.)
- 30C20 Conformal mappings of special domains
- 30C25 Covering theorems in conformal mapping theory
- 30C30 Numerical methods in conformal mapping theory [See also 65E05.]
- 30C35 General theory of conformal mappings
- 30C40 Kernel functions and applications
- 30C45 Special classes of univalent and multivalent functions (star-like, convex, bounded rotation, etc.)
- 30C50 Coefficient problems for univalent and multivalent functions
- 30C55 General theory of univalent and multivalent functions
- 30C60 Quasiconformal mappings
- 30C70 Extremal problems for conformal and quasiconformal mappings, variational methods
- 30C75 Extremal problems for conformal and quasiconformal mappings, other methods
- 30C80 Maximum principle; Schwarz' lemma, Lindelöf principle, analogues and generalizations; subordination
- 30C85 Capacity and harmonic measure in the complex plane [See also 31A15.]
- 30C99 None of the above, but in this section

30Dxx Entire and meromorphic functions, and related topics
- 30D05 Functional equations in the complex domain, iteration and composition of analytic functions [See also 34A20, 39–XX.]
- 30D10 Representations of entire functions by series and integrals
- 30D15 Special classes of entire functions and growth estimates
- 30D20 Entire functions, general theory
- 30D30 Meromorphic functions, general theory
- 30D35 Distribution of values, Nevanlinna theory
- 30D40 Cluster sets, prime ends, boundary behavior
- 30D45 Normal functions, normal families
- 30D50 Blaschke products, bounded characteristic, bounded functions, functions with positive real part
- 30D55 H^p-classes
- 30D60 Quasianalytic and other classes of functions
- 30D99 None of the above, but in this section

30Exx Miscellaneous topics of analysis in the complex domain
- 30E05 Moment problems, interpolation problems
- 30E10 Approximation in the complex domain
- 30E15 Asymptotic representations in the complex domain
- 30E20 Integration, integrals of Cauchy type, integral representations of analytic functions [See also 45Exx.]
- 30E25 Boundary value problems [See also 45Exx.]
- 30E99 None of the above, but in this section

30Fxx Riemann surfaces
- 30F10 Compact Riemann surfaces and uniformization [See also 14H15, 32G15.]
- 30F15 Harmonic functions on Riemann surfaces
- 30F20 Classification theory of Riemann surfaces
- 30F25 Ideal boundary theory
- 30F30 Differentials on Riemann surfaces
- 30F35 Fuchsian groups and automorphic functions [See also 10Dxx, 20H10, 32Gxx, 32Nxx.]
- 30F40 Kleinian groups [See also 20H10.]
- 30F99 None of the above, but in this section

30Gxx Generalized function theory
- 30G05 Non-Archimedean function theory [See also 12J25.]
- 30G10 Nonstandard function theory [See also 03H05.]
- 30G15 Topological function theory
- 30G20 Generalizations of Vekua type (pseudoanalytic, p-analytic, etc.)
- 30G25 Discrete analytic functions
- 30G30 Other generalizations of analytic functions (including abstract-valued functions)

30G35 Functions of hypercomplex variables and generalized variables
30G99 None of the above, but in this section
30H05 Spaces and algebras of analytic functions [See also 32E25, 46Exx, 46J15.]

31-XX POTENTIAL THEORY {For probabilistic potential theory, see 60J45.}

31-01 Elementary exposition, textbooks
31-02 Advanced exposition (research surveys, monographs, etc.)
31-03 Historical (must also be assigned at least one classification number from Section 01)
31-04 Explicit machine computation and programs (not the theory of computation or programming)
31-06 Proceedings, conferences, etc.
31Axx Two-dimensional theory
31A05 Harmonic, subharmonic, superharmonic functions
31A10 Integral representations
31A15 Potentials and capacity, harmonic measure, extremal length [See also 30C85.]
31A20 Boundary behavior (theorems of Fatou type, etc.)
31A25 Boundary value and inverse problems
31A30 Biharmonic, polyharmonic functions and equations, Poisson's equation
31A35 Connections with differential equations
31A99 None of the above, but in this section
31Bxx Higher-dimensional theory
31B05 Harmonic, subharmonic, superharmonic functions
31B10 Integral representations
31B15 Potentials and capacities, extremal length
31B20 Boundary value and inverse problems
31B25 Boundary behavior
31B30 Biharmonic and polyharmonic equations and functions
31B35 Connections with differential equations
31B99 None of the above, but in this section
31Cxx Other generalizations
31C05 Harmonic, subharmonic, superharmonic functions
31C10 Pluriharmonic and plurisubharmonic functions [See also 32F05.]
31C12 Potential theory on Riemannian manifolds [See also 53C20; for Hodge theory, see 58A14.]
31C15 Potentials and capacities
31C20 Discrete potential theory and numerical methods
31C25 Dirichlet spaces
31C99 None of the above, but in this section
31D05 Axiomatic potential theory

32-XX SEVERAL COMPLEX VARIABLES AND ANALYTIC SPACES {For infinite-dimensional holomorphy, see also 46G20, 58B12.}

32-01 Elementary exposition, textbooks
32-02 Advanced exposition (research surveys, monographs, etc.)
32-03 Historical (must also be assigned at least one classification number from Section 01)
32-04 Explicit machine computation and programs (not the theory of computation or programming)
32-06 Proceedings, conferences, etc.
32Axx Holomorphic functions of several complex variables
32A05 Power series, series of functions
32A07 Special domains (Reinhardt, Hartogs, tube domains, etc.)
32A10 Holomorphic functions
32A15 Entire functions
32A17 Normal families
32A20 Meromorphic functions
32A22 Nevanlinna theory: growth estimates {For geometric theory, see 32H25, 32H30.}
32A25 Integral representation
32A27 Local theory of residues [See also 32C30.]
32A30 Other generalizations of function theory of one complex variable (should also be assigned at least one classification number from Section 30) {For functions of several hypercomplex variables, see 30G35.}
32A35 H^p-spaces [See also 32M15, 42B30, 43A85, 46J15.]
32A40 Boundary behavior
32A45 Hyperfunctions [See also 46F15.]
32A99 None of the above, but in this section
32Bxx Local analytic geometry [See also 13-XX and 14-XX.]
32B05 Analytic algebra and generalizations, preparation theorems
32B10 Germs of analytic sets
32B15 Analytic subsets of affine space
32B20 Semi-analytic sets and subanalytic sets
32B25 Triangulation and related questions
32B30 Local singularities [See also 14B05, 32C40, 32C42.]
32B99 None of the above, but in this section
32Cxx General theory of analytic spaces
32C05 Real-analytic manifolds, real-analytic spaces [See also 14G30, 58A07.]
32C10 Complex manifolds {For almost complex manifolds, see 53C15.}
32C15 Complex spaces
32C20 Normal analytic spaces
32C25 Analytic subsets and submanifolds
32C30 Integration on analytic sets and spaces, currents {For local theory, see 32A25 or 32A27.}
32C35 Analytic sheaves and cohomology groups [See also 14Fxx, 18F20, 55N30.]
32C36 Local cohomology of analytic spaces
32C37 Duality theorems
32C40 Singularities
32C42 Stratified sets, etc. [See also 32Bxx.]
32C45 Modifications, resolution of singularities [See also 14E15.]
32C99 None of the above, but in this section
32Dxx Analytic continuation
32D05 Domains of holomorphy
32D10 Envelopes of holomorphy
32D15 Continuation of analytic objects
32D20 Removable singularities
32D25 Non-Archimedean function theory
32D99 None of the above, but in this section
32Exx Holomorphic convexity
32E05 Holomorphically convex complex spaces, reduction theory
32E10 Stein spaces, Stein manifolds
32E15 Runge pairs
32E20 Polynomial convexity
32E25 Algebras of holomorphic functions [See also 30H05, 46J10, 46J15.]
32E27 Krasner-Tate algebras, etc. (algebras of holomorphic functions over non-Archimedean fields)
32E30 Holomorphic and polynomial approximation
32E35 Global boundary behavior of holomorphic functions
32E99 None of the above, but in this section
32Fxx Geometric convexity
32F05 Plurisubharmonic functions and generalizations [See also 31C10.]
32F10 q-convexity, q-concavity
32F15 Pseudoconvex domains
32F20 Geometric results on $\bar{\partial}$-Neumann problems [See also 35N15.]
32F25 Real submanifolds in complex manifolds
32F30 Pseudoconvex manifolds
32F99 None of the above, but in this section
32Gxx Deformations of analytic structures
32G05 Deformations of complex structures [See also 13D10, 16A58, 58H10, 58H15.]
32G07 Deformations of special (e.g. CR) structures
32G10 Deformations of submanifolds and subspaces
32G11 Deformations of singularities
32G13 Analytic moduli problems {For algebraic moduli problems, see 14D20.}
32G15 Moduli of Riemann surfaces, Teichmüller theory [See also 14H15, 30Fxx.]
32G20 Period matrices [See also 14H05.]
32G99 None of the above, but in this section

32Hxx Holomorphic mappings
- 32H05 Representative domains
- 32H10 Bergman kernel function
- 32H15 Invariant metrics and pseudodistances
- 32H20 Hyperbolic complex manifolds
- 32H25 Picard type theorems and generalizations {For function-theoretic properties, see 32A22.}
- 32H30 Value distribution theory in higher dimensions {For function-theoretic properties, see 32A22.}
- 32H99 None of the above, but in this section

32Jxx Compact analytic spaces {For Riemann surfaces, see 14Hxx, 30Fxx.}
- 32J05 Compactification
- 32J10 Algebraic dependence theorems
- 32J15 Compact surfaces
- 32J20 Algebraicity criteria
- 32J25 Transcendental methods of algebraic geometry [See also 14C30.]
- 32J99 None of the above, but in this section

32Kxx Generalizations of analytic spaces (should also be assigned at least one other classification number in this section)
- 32K05 Banach analytic spaces [See also 58Bxx.]
- 32K10 Non-Archimedean analytic spaces
- 32K15 Differentiable functions on analytic spaces, differentiable spaces [See also 58C25.]
- 32K99 None of the above, but in this section

32Lxx Holomorphic fiber spaces [See also 55Rxx.]
- 32L05 Holomorphic fiber bundles and generalizations
- 32L10 Sheaves and cohomology of sections of holomorphic vector bundles, general results [See also 18F20, 55N30.]
- 32L15 Bundle convexity [See also 32F10.]
- 32L20 Vanishing theorems
- 32L99 None of the above, but in this section

32Mxx Complex spaces with a group of automorphisms
- 32M05 Complex Lie groups, automorphism groups of complex spaces [See also 22E10.]
- 32M10 Homogeneous complex manifolds [See also 14M17, 57T15.]
- 32M15 Hermitian symmetric spaces, bounded symmetric domains [See also 22E10, 22E40, 53C35, 57T15.]
- 32M99 None of the above, but in this section

32Nxx Automorphic functions [See also 10Dxx, 20H10, 22E40, 30F35.]
- 32N05 General theory of automorphic functions of several complex variables
- 32N10 Automorphic forms
- 32N15 Automorphic functions in symmetric domains
- 32N99 None of the above, but in this section

33–XX SPECIAL FUNCTIONS {33–XX deals with the properties of functions as functions. General systems of orthogonal functions are treated in 42C05. Expansions in orthogonal functions are treated in 42C10, 42C15.}
- 33–01 Elementary exposition, textbooks
- 33–02 Advanced exposition (research surveys, monographs, etc.)
- 33–03 Historical (must also be assigned at least one classification number from Section 01)
- 33–04 Explicit machine computation and programs (not the theory of computation or programming)
- 33–06 Proceedings, conferences, etc.
- 33A10 Exponential and trigonometric functions
- 33A15 Gamma and beta functions
- 33A20 Error function, probability integral
- 33A25 Elliptic functions and integrals
- 33A30 Simple hypergeometric functions of one and several variables
- 33A35 Generalized hypergeometric functions of one and several variables, (E-functions, G-functions, H-functions, etc.)
- 33A40 Cylindrical functions, Bessel functions
- 33A45 Spherical functions (Legendre polynomials and functions, spherical harmonics), ultraspherical polynomials
- 33A50 Gegenbauer functions
- 33A55 Lamé, Mathieu, spheroidal wave functions
- 33A60 Other wave functions
- 33A65 Orthogonal special functions and polynomials (Čebyšev, Hermite, Jacobi, Laguerre, etc.)
- 33A70 Other special functions
- 33A75 Special functions and Lie groups [See also 22Exx, 43A80.]
- 33A99 Miscellaneous topics

34–XX ORDINARY DIFFERENTIAL EQUATIONS
- 34–01 Elementary exposition, textbooks
- 34–02 Advanced exposition (research surveys, monographs, etc.)
- 34–03 Historical (must also be assigned at least one classification number from Section 01)
- 34–04 Explicit machine computation and programs (not the theory of computation or programming)
- 34–06 Proceedings, conferences, etc.

34Axx General theory
- 34A05 Solutions in closed form, integration by quadratures, reduction of differential equations
- 34A08 Equations not solved with respect to the highest-order derivative, singular solutions
- 34A10 Initial value problems: general existence and uniqueness theorems; continuous dependence of solutions on parameters, initial conditions and boundary conditions [See also 45D05.]
- 34A15 Initial value problems: continuation of solutions
- 34A20 Differential equations in the complex domain [See also 30D05.]
- 34A25 Analytical theory: series, transformations, transforms, operational calculus, etc. [See also 44–XX, 47E05.]
- 34A30 Linear equations and systems
- 34A34 Nonlinear equations and systems, general
- 34A35 Differential equations of infinite order
- 34A40 Differential inequalities
- 34A45 Theoretical approximation of solutions
- 34A50 Numerical approximation of solutions {For numerical analysis, see 65Lxx.}
- 34A55 Inverse problems
- 34A60 Equations with multivalued right-hand sides [See also 49A50, 49E10.]
- 34A99 None of the above, but in this section

34Bxx Boundary value problems
- 34B05 Linear equations
- 34B10 Multipoint boundary value problems
- 34B15 Nonlinear boundary value problems
- 34B20 Weyl theory and its generalizations
- 34B25 Spectral theory, Sturm-Liouville, and scattering theory; eigenfunctions, eigenvalues, and expansions [See also 42–XX, 43–XX, 45C05, 47Axx, 47Bxx, 47E05.]
- 34B27 Green functions
- 34B30 Special equations (Mathieu, Hill, Bessel, etc.) [See also 33–XX.]
- 34B99 None of the above, but in this section

34Cxx Qualitative theory
- 34C05 Location of integral curves, singular points, limit cycles
- 34C10 Zeros, disconjugacy, oscillation and comparison of solutions
- 34C11 Growth, boundedness of solutions
- 34C15 Nonlinear oscillations
- 34C20 Transformation and reduction of equations and systems
- 34C25 Periodic solutions
- 34C27 Almost-periodic solutions
- 34C28 Other types of "recurrent" solutions
- 34C29 Averaging method [See also 47H10.]
- 34C30 Manifolds of solutions
- 34C35 Dynamical systems [See also 54H20, 58Fxx, 70–XX.]
- 34C40 Equations and systems on manifolds [See mainly 58Fxx, 58Gxx.]
- 34C45 Method of integral manifolds
- 34C50 Method of accelerated convergence
- 34C99 None of the above, but in this section

34Dxx Stability theory [See also 58F10, 93Dxx.]
34D05 Asymptotic properties; characteristic exponents
34D10 Perturbations
34D15 Singular perturbations
34D20 Ljapunov stability
34D25 Popov-type stability
34D30 Structural stability and analogous concepts [See also 58Fxx.]
34D40 Ultimate boundedness
34D99 None of the above, but in this section

34Exx Asymptotic theory
34E05 Asymptotic expansions
34E10 Perturbations
34E15 Singular perturbations, general theory
34E20 Singular perturbations, turning point theory, WKB-methods
34E99 None of the above, but in this section

34F05 Equations and systems with randomness [See also 60H10, 93Exx.]

34Gxx Differential equations in abstract spaces [See also 58D25.]
34G10 Linear equations [See also 47Axx, 47Bxx, 47D05.]
34G20 Nonlinear equations [See also 47Hxx.]
34G99 None of the above, but in this section

34H05 Control problems [See also 49–XX, 93–XX.]

34Kxx Functional-differential and differential-difference equations, with or without deviating (or retarded) arguments
34K05 General theory
34K10 Boundary value problems
34K15 Qualitative theory
34K20 Stability theory
34K25 Asymptotic theory
34K30 Equations in abstract spaces
34K35 Control problems
34K99 None of the above, but in this section

35-XX PARTIAL DIFFERENTIAL EQUATIONS

35–01 Elementary exposition, textbooks
35–02 Advanced exposition (research surveys, monographs, etc.)
35–03 Historical (must also be assigned at least one classification number from Section 01)
35–04 Explicit machine computation and programs (not the theory of computation or programming)
35–06 Proceedings, conferences, etc.

35Axx General theory
35A05 General existence and uniqueness theorems
35A07 Local existence and uniqueness theorems [See also 35Hxx, 35Sxx.]
35A08 Fundamental solutions
35A10 Cauchy-Kowalewski theorems
35A15 Variational methods
35A20 Analytic methods, singularities
35A22 Transform methods
35A25 Other special methods
35A30 Geometric theory, characteristics, transformations
35A35 Theoretical approximation to solutions
35A40 Numerical approximation to solutions (For numerical analysis, see 65Mxx, 65Nxx, 65P05.)
35A99 None of the above, but in this section

35Bxx Qualitative properties of solutions
35B05 Comparison theorems; oscillation, zeros and growth of solutions
35B10 Periodic solutions
35B15 Almost periodic solutions
35B20 Perturbations
35B25 Singular perturbations
35B30 Dependence of solutions on initial and boundary data, parameters
35B32 Bifurcation
35B35 Stability, boundedness
35B37 Control [See also 49–XX, 93–XX.]
35B40 Asymptotic behavior of solutions
35B45 A priori estimates
35B50 Maximum principles
35B60 Continuation and prolongation [See also 58A15, 58A17, 58Hxx.]
35B65 Smoothness of solutions
35B99 None of the above, but in this section

35Cxx Representations of solutions
35C05 Solutions in closed form
35C10 Series solutions, expansion theorems
35C15 Integral representations
35C20 Asymptotic expansions
35C99 None of the above, but in this section

35Dxx Generalized solutions
35D05 Existence of generalized solutions
35D10 Regularity of generalized solutions
35D99 None of the above, but in this section

35Exx Equations and systems with constant coefficients [See also 35N05.]
35E05 Fundamental solutions
35E10 Convexity properties
35E15 Initial value problems
35E20 General theory
35E99 None of the above, but in this section

35Fxx General first order equations and systems
35F05 Linear equations and systems, general
35F10 Initial value problems for linear equations and systems
35F15 Boundary value problems for linear equations and systems
35F20 Nonlinear equations and systems, general
35F25 Initial value problems for nonlinear equations and systems
35F30 Boundary value problems for nonlinear equations and systems
35F99 None of the above, but in this section

35Gxx General higher order equations and systems
35G05 Linear equations and systems, general
35G10 Initial value problems for linear equations and systems
35G15 Boundary value problems for linear equations and systems
35G20 Nonlinear equations and systems, general
35G25 Initial value problems for nonlinear equations and systems
35G30 Boundary value problems for nonlinear equations and systems
35G99 None of the above, but in this section

35H05 Hypoelliptic equations and systems [See also 58Gxx.]

35Jxx Elliptic equations and systems [See also 58G05, 58G10.]
35J05 Laplace equation, reduced wave equation (Helmholtz), Poisson equation
35J10 Schrödinger operator [See also 47A40.]
35J15 Second order equations, general
35J20 Second order equations, variational methods
35J25 Second order equations, boundary value problems
35J30 Higher order equations, general
35J35 Higher order equations, variational methods
35J40 Higher order equations, boundary value problems
35J45 Systems, general
35J50 Systems, variational methods
35J55 Systems, boundary value problems
35J60 Nonlinear equations and systems
35J65 Nonlinear boundary value problems for linear equations and systems; boundary value problems for nonlinear equations and systems
35J67 Boundary values of solutions
35J70 Equations and systems of degenerate type
35J99 None of the above, but in this section

35Kxx Parabolic equations and systems [See also 58G11.]
35K05 Heat equation
35K10 Second order equations, general
35K15 Second order equations, initial value problems
35K20 Second order equations, boundary value problems
35K22 Evolution equations (any order in the spatial derivatives) [See also 58D25.]
35K25 Higher order equations, general
35K30 Higher order equations, initial value problems

35K35 Higher order equations, boundary value problems
35K40 Systems, general
35K45 Systems, initial value problems
35K50 Systems, boundary value problems
35K55 Nonlinear equations and systems
35K60 Nonlinear boundary value problems for linear equations and systems; boundary value problems for nonlinear equations and systems
35K65 Equations and systems of degenerate type
35K70 Ultraparabolic, pseudoparabolic problems
35K99 None of the above, but in this section

35Lxx Hyperbolic equations and systems [See also 58G16.]
35L05 Wave equation
35L10 Second order equations, general
35L15 Second order equations, initial value problems
35L20 Second order equations, boundary value problems
35L25 Higher order equations, general
35L30 Higher order equations, initial value problems
35L35 Higher order equations, boundary value problems
35L40 First order systems, general
35L45 First order systems, initial value problems
35L50 First order systems, boundary value problems
35L55 Higher order hyperbolic systems
35L60 First order nonlinear equations and systems
35L65 Conservation laws [See also 76–XX.]
35L67 Shocks and singularities
35L70 Second order nonlinear equations and systems
35L75 Higher (>2) order nonlinear equations and systems
35L80 Equations and systems of degenerate type
35L99 None of the above, but in this section

35M05 Equations and systems of mixed (Tricomi, etc.) or composite type {For degenerate types, elliptic, see 35Jxx, parabolic, see 35Kxx, hyperbolic, see 35Lxx, etc.}

35Nxx Overdetermined systems [See also 58G05, 58G07, 58Hxx.]
35N05 Constant coefficients
35N10 Variable coefficients, general
35N15 $\bar{\partial}$-Neumann problem and generalizations; formal complexes [See also 32Fxx and 58G05.]
35N99 None of the above, but in this section

35Pxx Spectral theory and eigenvalue problems [See also 47Axx, 47Bxx, 47F05.]
35P05 General spectral theory
35P10 Completeness of eigenfunctions, eigenfunction expansions
35P15 Estimation of eigenvalues, upper and lower bounds
35P20 Asymptotic distribution of eigenvalues and eigenfunctions
35P25 Scattering theory [See also 47A40.]
35P30 Nonlinear eigenvalue problems
35P99 None of the above, but in this section

35Qxx Special equations and problems [See also 35J05, 35K05, 35L05.]
35Q05 Euler-Poisson-Darboux equation and generalizations
35Q10 Navier-Stokes equation [See also 76D05.]
35Q15 Riemann-Hilbert problems [See also 30E25, 31A25, 31B20.]
35Q20 Particular equations of mathematical physics (Korteweg-de Vries, Burgers, etc.)
35Q99 None of the above, but in this section

35Rxx Miscellaneous topics {For equations on manifolds, see 58Gxx; for manifolds of solutions, see 58Bxx; for stochastic PDEs, see also 60H15.}
35R05 Equations with discontinuous coefficients or data
35R10 Difference-partial differential equations, equations with time lag
35R15 Equations on function spaces [See also 58D25.]
35R20 Operator equations, general [See also 34Gxx, 47A50, 47H15.]
35R25 Improperly posed problems
35R30 Inverse problems (undetermined coefficients, etc.)
35R35 Free boundary problems
35R45 Differential inequalities
35R60 Equations and systems with randomness
35R99 None of the above, but in this section

35Sxx Pseudodifferential operators [See also 47G05, 58G15.]
35S05 General theory
35S10 Initial value problems
35S15 Boundary value problems
35S99 None of the above, but in this section

39–XX FINITE DIFFERENCES AND FUNCTIONAL EQUATIONS

39–01 Elementary exposition, textbooks
39–02 Advanced exposition (research surveys, monographs, etc.)
39–03 Historical (must also be assigned at least one classification number from Section 01)
39–04 Explicit machine computation and programs (not the theory of computation or programming)
39–06 Proceedings, conferences, etc.

39Axx Finite differences [See also 65–XX.]
39A05 General
39A10 Difference equations
39A11 Stability of difference equations
39A12 Discrete version of topics in analysis
39A70 Difference operators [See also 47B39.]
39A99 None of the above, but in this section

39Bxx Functional equations [See also 30D05.]
39B05 General
39B10 Equations containing iterates, equations of rank one
39B20 Equations for one unknown function of one variable, rank greater than one
39B30 Equations for several unknown functions of one variable, systems
39B40 Equations for functions of several variables
39B50 Functional equations on algebraic structures
39B60 Matrix functional equations
39B70 Functional equations on abstract spaces or structures
39B99 None of the above, but in this section

39C05 Functional inequalities [See also 26Dxx.]

40–XX SEQUENCES, SERIES, SUMMABILITY

40–01 Elementary exposition, textbooks
40–02 Advanced exposition (research surveys, monographs, etc.)
40–03 Historical (must also be assigned at least one classification number from Section 01)
40–04 Explicit machine computation and programs (not the theory of computation or programming)
40–06 Proceedings, conferences, etc.

40Axx Convergence and divergence of infinite limiting processes
40A05 Convergence and divergence of series and sequences
40A10 Convergence and divergence of integrals
40A15 Convergence and divergence of continued fractions [See also 30B70.]
40A20 Convergence and divergence of infinite products
40A25 Approximation to limiting values (summation of series, etc.) {For the Euler-Maclaurin summation formula, see 65B15.}
40A30 Convergence and divergence of series and sequences of functions
40A99 None of the above, but in this section

40B05 Multiple sequences and series (should also be assigned at least one other classification number in this section)

40Cxx General summability methods
40C05 Matrix methods
40C10 Integral methods
40C15 Function-theoretic methods (including power series methods and semicontinuous methods)
40C99 None of the above, but in this section

40Dxx Direct theorems on summability
40D05 General theorems
40D09 Structure of summability fields
40D10 Tauberian constants and oscillation limits
40D15 Convergence factors and summability factors
40D20 Summability and bounded fields of methods

40D25 Inclusion and equivalence theorems
40D99 None of the above, but in this section

40Exx Inversion theorems

40E05 Tauberian theorems, general
40E10 Growth estimates
40E15 Lacunary inversion theorems
40E20 Tauberian constants
40E99 None of the above, but in this section

40F05 Absolute and strong summability

40Gxx Special methods of summability

40G05 Cesàro, Euler, Nörlund and Hausdorff methods
40G10 Abel, Borel and power series methods
40G99 None of the above, but in this section

40H05 Functional analytic methods in summability

40J05 Summability in abstract structures [See also 43A55, 46A35, 46B15.]

41–XX APPROXIMATIONS AND EXPANSIONS {For all approximation theory in the complex domain, see 30E05 and 30E10; for all trigonometric approximation and interpolation, see 42A10 and 42A15; for numerical approximation, see 65Dxx.}

41–01 Elementary exposition, textbooks
41–02 Advanced exposition (research surveys, monographs, etc.)
41–03 Historical (must also be assigned at least one classification number from Section 01)
41–04 Explicit machine computation and programs (not the theory of computation or programming)
41–06 Proceedings, conferences, etc.
41A05 Interpolation [See also 42A15 and 65D05.]
41A10 Approximation by polynomials {For approximation by trigonometric polynomials, see 42A10.}
41A15 Spline approximation
41A17 Inequalities in approximation (Bernšteĭn, Jackson, Nikol'skiĭ type inequalities)
41A20 Approximation by rational functions
41A21 Padé approximation
41A25 Rate of convergence, degree of approximation
41A27 Inverse theorems
41A28 Simultaneous approximation
41A29 Approximation with constraints
41A30 Approximation by other special function classes
41A35 Approximation by operators (in particular, by integral operators)
41A36 Approximation by positive operators
41A40 Saturation
41A44 Best constants
41A45 Approximation by arbitrary linear expressions
41A46 Approximation by arbitrary nonlinear expressions; widths and entropy
41A50 Best approximation, including Čebyšev systems
41A52 Uniqueness of best approximation
41A55 Approximate quadratures
41A58 Series expansions (e.g. Taylor, Lidstone series, but not Fourier series)
41A60 Asymptotic approximations, asymptotic expansions (steepest descent, etc.) [See also 30E15.]
41A63 Multidimensional problems (should also be assigned at least one other classification number in this section)
41A65 Abstract approximation theory (approximation in normed linear spaces and other abstract spaces)
41A99 Miscellaneous topics

42–XX FOURIER ANALYSIS

42–01 Elementary exposition, textbooks
42–02 Advanced exposition (research surveys, monographs, etc.)
42–03 Historical (must also be assigned at least one classification number from Section 01)
42–04 Explicit machine computation and programs (not the theory of computation or programming)
42–06 Proceedings, conferences, etc.

42Axx Fourier analysis in one variable

42A05 Trigonometric polynomials, inequalities, extremal problems
42A10 Trigonometric approximation
42A15 Trigonometric interpolation
42A16 Fourier coefficients, Fourier series of functions with special properties, special Fourier series
42A20 Convergence of Fourier and trigonometric series
42A24 Summability of Fourier and trigonometric series
42A28 Absolute convergence, absolute summability
42A32 Trigonometric series of special types (positive coefficients, monotonic coefficients, etc.)
42A38 Fourier and Fourier-Stieltjes transforms and other transforms of Fourier type
42A45 Multipliers
42A50 Conjugate functions, conjugate series, singular integrals
42A55 Lacunary series of trigonometric and other functions; Riesz products
42A61 Probabilistic methods
42A63 Uniqueness of trigonometric expansions, uniqueness of Fourier expansions, Riemann theory, localization
42A65 Completeness of sets of functions
42A70 Trigonometric moment problems
42A75 Classical almost periodic functions, mean periodic functions [See also 43A60.]
42A82 Positive definite functions
42A85 Convolution, factorization
42A99 None of the above, but in this section

42Bxx Fourier analysis in several variables

42B05 Fourier series and coefficients
42B10 Fourier and Fourier-Stieltjes transforms and other transforms of Fourier type
42B15 Multipliers
42B20 Singular integrals (Calderón-Zygmund, etc.)
42B25 Maximal functions, Littlewood-Paley theory
42B30 H^p-spaces
42B99 None of the above, but in this section

42Cxx Nontrigonometric Fourier analysis

42C05 Orthogonal functions and polynomials, general theory [See also 33A65.]
42C10 Fourier series in special orthogonal functions (Legendre polynomials, Walsh functions, etc.)
42C15 Series of general orthogonal functions, generalized Fourier expansions, nonorthogonal expansions
42C20 Rearrangements and other transformations of Fourier and other orthogonal series
42C25 Uniqueness and localization for orthogonal series
42C30 Completeness of sets of functions
42C99 None of the above, but in this section

43–XX ABSTRACT HARMONIC ANALYSIS {For other analysis on topological and Lie groups, see 22Exx.}

43–01 Elementary exposition, textbooks
43–02 Advanced exposition (research surveys, monographs, etc.)
43–03 Historical (must also be assigned at least one classification number from Section 01)
43–04 Explicit machine computation and programs (not the theory of computation or programming)
43–06 Proceedings, conferences, etc.
43A05 Measures on groups, semigroups, etc.
43A07 Means on groups, semigroups, etc.
43A10 Measure algebras on groups, semigroups, etc.
43A15 L^p-spaces and other function spaces on groups, semigroups, etc.
43A17 Analysis on ordered groups, H^p-theory
43A20 L^1-algebras on groups, semigroups, etc.
43A22 Homomorphisms and multipliers of function spaces on groups, semigroups, etc.
43A25 Fourier and Fourier-Stieltjes transforms on locally compact abelian groups
43A30 Fourier and Fourier-Stieltjes transforms on nonabelian groups and on semigroups, etc.
43A32 Other transforms and operators of Fourier type
43A35 Positive definite functions on groups, semigroups, etc.

43A40 Character groups and dual objects
43A45 Spectral synthesis on groups, semigroups, etc.
43A46 Special sets (thin sets, Kronecker sets, Helson sets, Ditkin sets, Sidon sets, etc.)
43A50 Convergence of Fourier series and of inverse transforms
43A55 Summability methods on groups, semigroups, etc. [See also 40J05.]
43A60 Almost periodic functions on groups and semigroups and their generalizations (recurrent functions, distal functions, etc.); almost automorphic functions
43A65 Representations of groups, semigroups, etc. [See also 22Dxx.]
43A70 Analysis on specific locally compact abelian groups [See also 12A85.]
43A75 Analysis on specific compact groups
43A77 Analysis on general compact groups
43A80 Analysis on other specific Lie groups [See also 22E30.]
43A85 Analysis on homogeneous spaces
43A90 Spherical functions [See also 22E45, 22E46.]
43A95 Categorical methods [See also 18–XX, 46Mxx.]
43A99 Miscellaneous topics

44–XX INTEGRAL TRANSFORMS, OPERATIONAL CALCULUS {For fractional derivatives and integrals, see 26A33. For numerical methods, see 65R10.}

44–01 Elementary exposition, textbooks
44–02 Advanced exposition (research surveys, monographs, etc.)
44–03 Historical (must also be assigned at least one classification number from Section 01)
44–04 Explicit machine computation and programs (not the theory of computation or programming)
44–06 Proceedings, conferences, etc.
44A05 General transforms [See also 42A38.]
44A10 Laplace transform
44A15 Special transforms (Legendre, Hilbert, etc.)
44A20 Transforms of special functions
44A30 Multiple transforms
44A35 Convolution
44A40 Calculus of Mikusiński and other similar operational calculi
44A45 Classical operational calculus
44A55 Discrete operational calculus
44A60 Moment problems
44A99 Miscellaneous topics

45–XX INTEGRAL EQUATIONS

45–01 Elementary exposition, textbooks
45–02 Advanced exposition (research surveys, monographs, etc.)
45–03 Historical (must also be assigned at least one classification number from Section 01)
45–04 Explicit machine computation and programs (not the theory of computation or programming)
45–06 Proceedings, conferences, etc.
45A05 Linear integral equations
45B05 Fredholm integral equations
45C05 Eigenvalue problems [See also 34B25, 35Pxx, 45P05.]
45D05 Volterra integral equations [See also 34A10.]
45Exx Singular integral equations [See also 30E20, 30E25, 44A15, 44A35.]
45E05 Integral equations with kernels of Cauchy type [See also 35J15.]
45E10 Integral equations of the convolution type (Abel, Picard, Toeplitz and Wiener-Hopf type) [See also 47B35.]
45E99 None of the above, but in this section
45Fxx Systems of linear integral equations
45F05 Systems of nonsingular linear integral equations
45F10 Dual, triple, etc., integral and series equations
45F15 Systems of singular linear integral equations
45F99 None of the above, but in this section
45Gxx Nonlinear integral equations [See also 47Hxx.]
45G05 Singular nonlinear integral equations
45G10 Other nonlinear integral equations
45H05 Miscellaneous special kernels [See also 44A15.]
45J05 Integro-ordinary differential equations
45K05 Integro-partial differential equations
45Lxx Approximation of solutions
45L05 Theoretical approximation of solutions
45L10 Numerical approximation of solutions {For numerical analysis, see 65R20.}
45L99 None of the above, but in this section
45Mxx Qualitative behavior
45M05 Asymptotics
45M10 Stability theory
45M99 None of the above, but in this section
45N05 Abstract integral equations, integral equations in abstract spaces
45P05 Integral operators [See also 47Axx, 47Bxx, 47G05.]

46–XX FUNCTIONAL ANALYSIS {For manifolds modeled on topological linear spaces, see 57N20, 58Bxx.}

46–01 Elementary exposition, textbooks
46–02 Advanced exposition (research surveys, monographs, etc.)
46–03 Historical (must also be assigned at least one classification number from Section 01)
46–04 Explicit machine computation and programs (not the theory of computation or programming)
46–06 Proceedings, conferences, etc.
46Axx Topological linear spaces
46A05 Locally convex spaces
46A06 Metrizable topological linear spaces and their duals (F-, DF-spaces, etc.)
46A07 Barrelled spaces
46A09 Bornological spaces
46A10 Locally bounded topological linear spaces
46A12 Spaces defined by special inductive or projective limits (LF-, nuclear, Schwartz, Silva spaces, etc.) [See also 46M10, 46M40.]
46A14 Spaces defined by compactness properties (Montel spaces, etc.)
46A15 Other topological linear spaces
46A20 Duality theory
46A22 Extension and lifting of functionals and operators [See also 46M10.]
46A25 Reflexivity and semi-reflexivity
46A30 Open mappings and closed graph theorems and completeness (including B-, B_r-completeness)
46A32 Spaces of linear operators
46A35 Summability and bases
46A40 Ordered topological linear spaces, vector lattices [See also 06F20, 46B30.]
46A45 Sequence spaces (including Köthe sequence spaces)
46A50 Compactness in topological linear spaces
46A55 Convexity, Choquet theory [See also 52A07.]
46A99 None of the above, but in this section
46Bxx Normed linear spaces and Banach spaces {For function spaces, see 46Exx.}
46B05 Topology in terms of the norms
46B10 Duality and reflexivity
46B15 Summability and bases
46B20 Geometry and structure
46B22 Spaces with Radon-Nikodým property [See also 46G10.]
46B25 Classical Banach spaces in the general theory
46B30 Banach lattices [See also 46A40.]
46B99 None of the above, but in this section
46Cxx Inner product spaces, Hilbert spaces {For function spaces, see 46Exx.}
46C05 Geometry and topology of the spaces
46C10 Other properties of such spaces
46C99 None of the above, but in this section
46D05 Spaces with indefinite inner product
46Exx Linear function spaces and their duals [See also 30H05; for function algebras, see 46J10.]
46E05 Lattices of continuous, differentiable or analytic functions

46E10 Topological linear spaces of continuous, differentiable or analytic functions
46E15 Banach spaces of continuous, differentiable or analytic functions
46E20 Hilbert spaces of continuous, differentiable or analytic functions
46E25 Rings and algebras of continuous, differentiable or analytic functions {For Banach function algebras, see 46J10, 46J15.}
46E27 Spaces of measures [See also 28A33.]
46E30 Spaces of measurable functions (L^p-spaces, Orlicz spaces, Köthe function spaces, Lorentz spaces, rearrangement invariant spaces, etc.)
46E35 Sobolev spaces and other spaces of "smooth" functions, imbedding theorems, trace theorems
46E39 Sobolev (and similar kinds of) spaces of functions of discrete variables
46E40 Spaces of vector- and operator-valued functions
46E99 None of the above, but in this section

46Fxx Distributions, generalized functions, distribution spaces {For distribution theory on nonlinear spaces, see 58Cxx.}
46F05 Topological linear spaces of test functions and distributions
46F10 Operations with distributions
46F12 Integral transforms in distribution spaces [See also 42–XX, 44–XX.]
46F15 Hyperfunctions, analytic functionals [See also 32A25, 32A45, 32C35, 58G07.]
46F20 Distributions as boundary values of analytic functions [See also 30Exx, 32A40.]
46F25 Distributions on infinite-dimensional spaces [See also 58C35.]
46F99 None of the above, but in this section

46Gxx Measures, integration, derivative {For integration on infinite-dimensional spaces, see 28C20; for nonlinear functional analysis, see 58–XX, especially 58Cxx.}
46G05 Derivatives
46G10 Vector-valued measures and integration [See also 28Bxx, 46B22.]
46G12 Measures and integration on abstract linear spaces [See also 28Cxx.]
46G15 Lifting theory [See also 28A51.]
46G20 Infinite-dimensional holomorphy [See also 32–XX, 58B12, 58C10.]
46G99 None of the above, but in this section

46Hxx Topological algebras, normed rings and algebras, Banach algebras {For group algebras, convolution algebras and measure algebras, see 43–XX.}
46H05 General theory
46H10 Ideals and subalgebras
46H15 Representations
46H20 Structure, classification
46H25 Normed modules and Banach modules, topological modules (if not placed in 13–XX or 16–XX)
46H30 Functional calculus [See also 47A60.]
46H99 None of the above, but in this section

46Jxx Commutative Banach algebras and commutative topological algebras
46J05 General theory
46J10 Banach algebras of continuous functions, function algebras
46J15 Banach algebras of differentiable or analytic functions, H^p-spaces [See also 30H05, 32A35, 32E25, 42B30.]
46J20 Ideals, maximal ideals, boundaries
46J25 Representations
46J30 Subalgebras
46J35 Structure, classification
46J99 None of the above, but in this section

46Kxx Rings and algebras with an involution
46K05 General theory
46K10 Representations
46K15 Hilbert algebras
46K99 None of the above, but in this section

46Lxx C^*-algebras and von Neumann (W^*-) algebras [See also 22D25.]
46L05 C^*-algebras, general theory
46L10 von Neumann algebras, general theory
46L30 States
46L35 Classifications, factors
46L40 Automorphisms
46L45 Decomposition theory
46L50 Noncommutative integration, noncommutative probability
46L55 Noncommutative dynamical systems [See also 28Dxx.]
46L60 Applications to physics
46L99 None of the above, but in this section

46Mxx Categorical methods [See also 18–XX.]
46M05 Tensor products
46M10 Projective and injective objects
46M15 Functors
46M20 Methods of algebraic topology (cohomology, sheaf and bundle theory, etc.) [See also 14F05, 18Fxx, 55Rxx.]
46M35 Abstract interpolation of topological vector spaces
46M40 Inductive and projective limits [See also 46A12.]
46M99 None of the above, but in this section

46N05 Miscellaneous applications of functional analysis

46P05 Functional analysis over fields other than R or C; non-Archimedean functional analysis [See also 12J25, 32E27.]

47–XX OPERATOR THEORY

47–01 Elementary exposition, textbooks
47–02 Advanced exposition (research surveys, monographs, etc.)
47–03 Historical (must also be assigned at least one classification number from Section 01)
47–04 Explicit machine computation and programs (not the theory of computation or programming)
47–06 Proceedings, conferences, etc.

47Axx Single linear operators: general theory
47A05 General (adjoints, conjugates, products, inverses, domains, ranges, etc.)
47A10 Spectrum, resolvent
47A12 Numerical range
47A15 Invariant subspaces
47A20 Dilations, extensions, compressions
47A25 Spectral sets
47A30 Norms (inequalities, more than one norm, etc.)
47A35 Ergodic theory [See also 28Dxx.]
47A40 Scattering theory [See also 34B25, 35P25, 47Dxx.]
47A45 Canonical models for contractions and nonselfadjoint operators
47A50 Equations involving linear operators, with vector unknowns
47A53 Fredholm operators
47A55 Perturbation theory
47A60 Functional calculus
47A62 Equations involving linear operators, with operator unknowns
47A65 Structure theory
47A66 (Non)quasitriangular, (non)quasidiagonal operators
47A67 Representation theory
47A68 Factorization theory
47A70 Eigenfunction expansions, rigged Hilbert spaces; eigenvalue problems in general [See also 49Gxx.]
47A99 None of the above, but in this section

47Bxx Single linear operators: special classes of operators
47B05 Compact operators, Riesz operators
47B10 Hilbert-Schmidt operators, trace class operators, nuclear operators, p-summing operators, etc.
47B15 Hermitian and normal operators (spectral measures, functional calculus, etc.)
47B20 Subnormal operators, hyponormal operators, etc.
47B25 Symmetric and selfadjoint operators (unbounded)
47B35 Toeplitz operators, Wiener-Hopf operators [See also 45P05, 47G05 for other integral operators.]

47B37 Operators on special spaces (weighted shifts, operators on sequence spaces, etc.)
47B38 Operators on function spaces
47B39 Difference operators [See also 39A70.]
47B40 Spectral operators, decomposable operators, etc.
47B44 Accretive operators, dissipative operators, etc.
47B47 Commutators, derivations
47B50 Operators on a space with an indefinite metric
47B55 Operators on ordered spaces
47B99 None of the above, but in this section

47Cxx Single linear operators as elements of algebraic systems
47C05 Operators in algebras
47C10 Operators in *-algebras
47C15 Operators in C^*- or von Neumann algebras
47C99 None of the above, but in this section

47Dxx Algebraic systems of linear operators [See also 46Lxx.]
47D05 Semigroups of operators {For nonlinear operators, see 47H20; see also 20M20.}
47D07 Markov semigroups {For Markov processes, see 60Jxx.}
47D10 Groups of operators
47D15 Linear spaces of operators
47D20 Convex sets and cones of operators
47D25 Operator algebras and ideals, on Hilbert space
47D30 Operator algebras and ideals, on Banach spaces and other linear topological spaces
47D35 Dual spaces of operator algebras and topological groups
47D40 Algebras of unbounded operators
47D45 Applications to physics
47D99 None of the above, but in this section

47E05 Ordinary differential operators [See also 34B25, 58Fxx.]

47F05 Partial differential operators [See also 35Pxx, 58Gxx.]

47G05 Integral, integro-differential, and pseudodifferential operators [See also 35Sxx, 45P05, 58Gxx.]

47Hxx Nonlinear operators {For global and geometric aspects, see 58–XX, especially 58Cxx.}
47H05 Monotone operators
47H06 Accretive operators, dissipative operators, etc.
47H07 Monotone and positive operators on ordered Banach spaces or other ordered topological vector spaces
47H09 Nonexpansive mappings, ultimately compact mappings, K-set contractions, etc.
47H10 Fixed-point theorems [See also 34C29, 54H25, 55M20, 58C30.]
47H12 Spectral theory of nonlinear operators
47H15 Equations involving nonlinear operators [See also 58E07 for abstract bifurcation theory.]
47H17 Methods for solving equations involving nonlinear operators {For numerical analysis, see 65J15.}
47H20 Semigroups of nonlinear operators [See also 58D07.]
47H99 None of the above, but in this section

49–XX CALCULUS OF VARIATIONS AND OPTIMAL CONTROL; OPTIMIZATION [See also 34H05, 65Kxx, 90Cxx, 93–XX.]

49–01 Elementary exposition, textbooks
49–02 Advanced exposition (research surveys, monographs, etc.)
49–03 Historical (must also be assigned at least one classification number from Section 01)
49–04 Explicit machine computation and programs (not the theory of computation or programming)
49–06 Proceedings, conferences, etc.

49Axx Existence theory for optimal solutions
49A05 Free problems in one independent variable
49A10 Problems involving ordinary differential equations, optimal control
49A21 Free problems in two or more independent variables
49A22 Problems involving partial differential equations, optimal control
49A27 Problems in abstract spaces
49A29 Variational inequalities
49A34 Problems involving functional relations other than differential equations
49A36 Optimal solutions belonging to restricted classes (bang-bang controls, etc.)
49A40 Minimax problems
49A45 Game theory; pursuit and evasion [See also 90Dxx.]
49A50 Topology of solutions, weak and strong minima, semicontinuity, convexity, orientor fields
49A51 Fréchet and Gâteaux differentiability
49A55 Duality theory
49A60 Optimal stochastic control [See also 93Exx.]
49A99 None of the above, but in this section

49Bxx Necessary conditions and sufficient conditions for optimality
49B05 Free problems in one independent variable
49B10 Problems involving ordinary differential equations, optimal control
49B21 Free problems in two or more independent variables
49B22 Problems involving partial differential equations, optimal control
49B27 Problems in abstract spaces
49B34 Problems involving functional relations other than differential equations
49B36 Optimal solutions belonging to restricted classes
49B40 Minimax problems
49B50 Sensitivity of optimal solutions in the presence of perturbations
49B60 Optimal stochastic control [See also 93Exx.]
49B99 None of the above, but in this section

49Cxx Carathéodory, Hamilton-Jacobi theories, including dynamic programming [See also 90C39.]
49C05 Free problems and problems involving ordinary differential equations
49C10 Free problems and problems involving partial differential equations
49C15 Problems in abstract spaces or involving functional relations other than differential equations
49C20 Dynamic programming method
49C99 None of the above, but in this section

49Dxx Methods of successive approximations {For discrete problems, see 90Cxx; see also 65Kxx.}
49D05 Methods based on necessary conditions
49D07 Gradient methods
49D10 Methods of steepest descent type
49D15 Methods of Newton-Raphson, Galerkin and Ritz types
49D20 Methods of relaxation type
49D25 Finite difference methods
49D27 Decomposition methods
49D29 Multiplier methods
49D30 Other methods, not based on necessary conditions (penalty function, etc.)
49D35 Methods of linear programming type
49D37 Nonlinear programming
49D39 Semi-infinite programming
49D40 Methods of quadratic programming type
49D45 Methods of convex programming type
49D49 Geometric programming
49D50 Periodic optimization
49D99 None of the above, but in this section

49Exx Controllability and geometry of control problems
49E05 General dependence on controls
49E10 Orientor fields (contingency equations)
49E15 Attainable sets, controllability
49E20 Interrelations between stability problems and optimization problems
49E25 Effect of perturbations on controllability
49E30 Relations between controllability and optimal solutions
49E99 None of the above, but in this section

49Fxx Manifolds [See also 58Exx.]
49F05 Exterior differential forms, invariant integrals (Cartan theory) [See mainly 58A15.]
49F10 Minimal surfaces [See mainly 53A10, also 58E12.]

49F15 Morse theory in Hilbert and other spaces [See also 57R27, 58Exx.]
49F20 Geometric measure and integration theory, integral and normal currents, flat chains and cochains, varifolds [See also 28A75, 32C30, 58A25, 58C35.]
49F22 Existence and structure of solutions to variational problems in geometric measure-theoretic setting
49F25 Surface area; Weierstrass and Burkill integrals, subadditive set functions
49F99 None of the above, but in this section

49Gxx Variational methods for eigenvalues [See also 47A70.]
49G05 Variational approach to eigenvalues
49G10 Rayleigh-Ritz methods
49G15 Weinstein and Aronszajn methods, intermediate problems
49G20 Linear operators in Hilbert spaces
49G99 None of the above, but in this section

49H05 Variational principles of physics [See also 70–XX, 81–XX.]

51–XX GEOMETRY {For algebraic geometry, see 14–XX.}

51–01 Elementary exposition, textbooks
51–02 Advanced exposition (research surveys, monographs, etc.)
51–03 Historical (must also be assigned at least one classification number from Section 01)
51–04 Explicit machine computation and programs (not the theory of computation or programming)
51–06 Proceedings, conferences, etc.

51Axx Linear incidence geometry
51A05 General theory and projective geometries
51A10 Homomorphism, automorphism and dualities
51A15 Structures with parallelism
51A20 Configuration theorems
51A25 Algebraization [See also 12Kxx, 20N10.]
51A30 Desarguesian and Pappian geometries
51A35 Non-Desarguesian affine and projective planes
51A40 Translation planes and spreads
51A45 Incidence structures imbeddable into projective geometries
51A99 None of the above, but in this section

51Bxx Nonlinear incidence geometry
51B05 General theory
51B10 Möbius geometries
51B15 Laguerre geometries
51B20 Minkowski geometries
51B25 Lie geometries
51B99 None of the above, but in this section

51C05 Ring geometry (Hjelmslev, Barbilian, etc.)

51Dxx Geometric closure systems
51D05 Abstract (Maeda) geometries
51D10 Abstract geometries with exchange axiom
51D15 Abstract geometries with parallelism
51D20 Combinatorial geometries [See also 05B25.]
51D25 Lattices of subspaces [See also 05B35.]
51D30 Continuous geometries and related topics
51D99 None of the above, but in this section

51Exx Finite geometry
51E05 General block designs [See also 05B05.]
51E10 Steiner systems
51E15 Affine and projective planes
51E20 Combinatorial structures in finite projective spaces [See also 05Bxx.]
51E25 Finite nonlinear geometries
51E30 Other finite incidence structures [See also 05B30.]
51E99 None of the above, but in this section

51Fxx Metric geometry
51F05 Absolute planes
51F10 Absolute spaces
51F15 Reflection groups, reflection geometries [See also 20H10, 20H15.]
51F20 Congruence and orthogonality [See also 20H05.]
51F25 Orthogonal and unitary groups [See also 20H05.]
51F99 None of the above, but in this section

51G05 Ordered geometries (ordered incidence structures, etc.)

51Hxx Topological geometry
51H05 General theory
51H10 Topological linear incidence structures
51H15 Topological nonlinear incidence structures
51H20 Topological geometries on manifolds [See also 57–XX.]
51H25 Geometries with differentiable structure [See also 53Cxx, 53C70.]
51H30 Geometries with algebraic manifold structure [See also 14–XX.]
51H99 None of the above, but in this section

51Jxx Incidence groups
51J05 General theory
51J10 Projective incidence groups
51J15 Kinematic spaces
51J20 Representation by near-fields and near-algebras [See also 12K05, 16A76.]
51J99 None of the above, but in this section

51Kxx Distance geometry
51K05 General theory
51K10 Synthetic differential geometry
51K99 None of the above, but in this section

51Lxx Geometric order structures [See also 53C75.]
51L05 Geometry of orders of nondifferentiable curves
51L10 Directly differentiable curves
51L15 n-vertex theorems via direct methods
51L20 Geometry of orders of surfaces
51L99 None of the above, but in this section

51Mxx Real and complex geometry
51M05 Euclidean geometries
51M10 Hyperbolic and elliptic geometries
51M15 Geometric constructions
51M20 Polyhedra and polytopes; regular figures, division of spaces [See also 51F15.]
51M25 Length, area and volume [See also 26B15.]
51M30 Line geometries and their generalizations
51M35 Synthetic treatment of fundamental manifolds in projective geometries (Grassmannians, Veronesians and their generalizations) [See also 14M15.]
51M99 None of the above, but in this section

51Nxx Analytic and descriptive geometry
51N05 Descriptive geometry
51N10 Affine analytic geometry
51N15 Projective analytic geometry
51N20 Euclidean analytic geometry
51N25 Analytic geometry with other transformation groups
51N30 Geometry of classical groups [See also 20Gxx, 14Lxx.]
51N35 Questions of classical algebraic geometry [See also 14Nxx.]
51N99 None of the above, but in this section

52–XX CONVEX SETS AND RELATED GEOMETRIC TOPICS

52–01 Elementary exposition, textbooks
52–02 Advanced exposition (research surveys, monographs, etc.)
52–03 Historical (must also be assigned at least one classification number from Section 01)
52–04 Explicit machine computation and programs (not the theory of computation or programming)
52–06 Proceedings, conferences, etc.
52A01 Axiomatic and generalized convexity
52A05 Convex sets without dimension restrictions
52A07 Convex sets in topological vector spaces [See also 46A55.]
52A10 Convex sets in 2 dimensions
52A15 Convex sets in 3 dimensions
52A20 Convex sets in n dimensions
52A22 Random convex sets and integral geometry [See also 53C65, 60D05.]
52A25 Polyhedra and polytopes
52A30 Invariants of convex sets (star-shaped, (m, n)-convex, etc.)
52A35 Helly type theorems
52A37 Other problems of combinatorial geometry
52A40 Inequalities and extremum problems
52A43 Lattices and convex bodies [See also 10E05.]

52A45 Packing, covering, tiling [See also 05B40, 05B45, 10E30, 51–XX.]
52A50 Hilbert geometry [See also 51Kxx.]
52A55 Spherical and hyperbolic convexity
52A99 Miscellaneous topics

53–XX DIFFERENTIAL GEOMETRY {For differential topology, see 57Rxx. For foundational questions of differentiable manifolds, see 58Axx.}

53–01 Elementary exposition, textbooks
53–02 Advanced exposition (research surveys, monographs, etc.)
53–03 Historical (must also be assigned at least one classification number from Section 01)
53–04 Explicit machine computation and programs (not the theory of computation or programming)
53–06 Proceedings, conferences, etc.

53Axx Classical differential geometry

53A04 Curves in Euclidean space
53A05 Surfaces in Euclidean space
53A07 Higher-dimension and -codimension surfaces in Euclidean n-space
53A10 Minimal surfaces, surfaces with prescribed mean curvature [See also 49F10, 53C42.]
53A15 Affine differential geometry
53A17 Kinematics
53A20 Projective differential geometry
53A25 Differential line geometry
53A30 Conformal differential geometry
53A35 Non-Euclidean differential geometry
53A40 Other special differential geometries
53A45 Vector and tensor analysis
53A50 Spinor analysis
53A55 Differential invariants (local theory), geometric objects
53A60 Geometry of webs [See also 14C21, 20N05.]
53A99 None of the above, but in this section

53Bxx Local differential geometry

53B05 Linear and affine connections
53B10 Projective connections
53B15 Other connections
53B20 Local Riemannian geometry
53B21 Methods of Riemannian geometry
53B25 Local submanifolds [See also 53C40.]
53B30 Lorentz metrics, indefinite metrics
53B35 Hermitian and Kählerian structures [See also 32Cxx.]
53B40 Finsler spaces and generalizations (areal metrics)
53B50 Applications to physics
53B99 None of the above, but in this section

53Cxx Global differential geometry [See also 51H25, 58–XX; for related bundle theory, see 55Rxx, 57Rxx.]

53C05 Connections
53C10 G-structures
53C15 Almost complex, contact, symplectic, almost product structures, etc.
53C20 Riemannian manifolds, including pinching [See also 31C12, 58B20.]
53C21 Methods of Riemannian geometry
53C22 Geodesics [See also 58E10.]
53C25 Special Riemannian manifolds (Einstein, Sasakian, etc.)
53C30 Homogeneous manifolds [See also 14M15, 14M17, 32M10, 57T15.]
53C35 Symmetric spaces [See also 32M15, 57T15.]
53C40 Submanifolds [See also 53B25.]
53C42 Immersions (minimal, prescribed curvature, tight, etc.) [See also 49F10, 53A10, 57R40, 57R42.]
53C45 Global surface theory (convex surfaces à la A. D. Aleksandrov)
53C50 Lorentz manifolds, manifolds with indefinite metrics
53C55 Hermitian and Kählerian manifolds [See also 32Cxx.]
53C60 Finsler spaces and generalizations (areal metrics) [See also 58B20.]
53C65 Integral geometry [See also 52A22, 60D05.]; differential forms, currents, etc. [See mainly 58Axx.]
53C70 Direct methods (G-spaces of Busemann, etc.)
53C75 Geometric orders, order geometry [See also 51Lxx.]
53C80 Applications to physics
53C99 None of the above, but in this section

54–XX GENERAL TOPOLOGY {For the topology of manifolds of all dimensions, see 57Nxx.}

54–01 Elementary exposition, textbooks
54–02 Advanced exposition (research surveys, monographs, etc.)
54–03 Historical (must also be assigned at least one classification number from Section 01)
54–04 Explicit machine computation and programs (not the theory of computation or programming)
54–06 Proceedings, conferences, etc.

54Axx Generalities

54A05 Topological spaces and generalizations (closure spaces, etc.)
54A10 Change of topology, comparison of topologies
54A15 Syntopogeneous structures
54A20 Convergence (general theory) and limits
54A25 Cardinality properties (discrete subsets, weight, etc.), ultrafilters, etc. [See also 03Exx, 04A30.]
54A35 Consistency and independence results [See also 03E35.]
54A40 Fuzzy topology [See also 03E72.]
54A99 None of the above, but in this section

54Bxx Basic constructions

54B05 Subspaces
54B10 Product spaces
54B15 Quotient spaces, decompositions
54B17 Adjunction spaces and similar constructions
54B20 Hyperspaces
54B25 Sums, inverse limits
54B30 Categorical methods [See also 18B30.]
54B35 Spectra
54B40 Presheaves and sheaves [See also 18F20.]
54B99 None of the above, but in this section

54Cxx Maps and general types of spaces defined by maps

54C05 Continuous maps
54C08 Connectivity maps, semicontinuous maps, etc.
54C10 Special maps: open, closed, perfect, almost open, light, etc.
54C15 Retraction
54C20 Extension
54C25 Imbedding
54C30 Real-valued functions [See also 26–XX.]
54C35 Function spaces [See also 58D15.]
54C40 $C(X)$; algebraic techniques (ideals, etc.) [See also 46J10.]
54C45 C- and C^*-imbedding
54C50 Zero sets, Baire sets and functions [See also 26A21.]
54C55 Absolute neighborhood extensor, absolute extensor, absolute neighborhood retract (ANR), absolute retract spaces (general properties) [See also 54F40, 55M15.]
54C56 Shape theory [See mainly 55P55, 57N25.]
54C60 Set-valued maps [See also 26E25, 28B20.]
54C65 Selections [See also 28B20.]
54C70 Entropy
54C99 None of the above, but in this section

54Dxx Fairly general properties

54D05 Connected and locally connected spaces (general aspects)
54D10 Separation axioms, $T_0 - T_3$
54D15 Higher separation axioms (completely regular, normal, perfectly or collectionwise normal, etc.)
54D18 Paracompactness, pointwise paracompactness, etc.
54D20 Covering properties: Lindelöf, (m, n)-compact, etc.
54D25 "P-minimal" and "P-closed" spaces
54D30 Compact spaces and generalizations
54D35 Compactifications, etc.
54D40 Remainders
54D45 Local compactness, σ-compactness
54D50 k-spaces
54D55 Sequential spaces
54D60 Realcompactness and realcompactification
54D99 None of the above, but in this section

54Exx Spaces with richer structures
54E05 Proximity structures and generalizations
54E10 p-maps
54E15 Uniform structures and generalizations
54E17 Nearness spaces
54E18 p-spaces, M-spaces, σ-spaces, etc.
54E20 Stratifiable spaces, cosmic spaces, etc.
54E25 Semimetric spaces
54E30 Moore spaces
54E35 Metric spaces, metrizability
54E40 Isometries, contractions, expansions
54E45 Compact (locally compact) metric spaces
54E50 Complete metric spaces
54E52 Completions, Baire category
54E55 Bitopologies
54E60 CW-complexes, triangulable spaces
54E65 Countability conditions, separability
54E99 None of the above, but in this section

54Fxx Special properties
54F05 Ordered topological spaces, partially ordered spaces [See also 06B30, 06F30.]
54F15 Continua and generalizations
54F20 Special types of continua
54F25 Peano spaces and generalizations
54F30 Cyclic elements
54F35 Higher dimensional local connectedness [See also 55Mxx, 55Nxx.]
54F40 Compact (locally compact) absolute neighborhood retracts
54F43 Shape theory [See mainly 55P55, 57N25.]
54F45 Dimension theory [See also 55M10.]
54F50 Spaces of dimension $\leqslant 1$; curves, dendrites [See also 26A03.]
54F55 Unicoherence, multicoherence
54F60 Maps into S_n
54F62 Periodic maps
54F65 Topological characterizations of particular spaces
54F99 None of the above, but in this section

54Gxx Peculiar spaces
54G05 Extremally disconnected spaces, F-spaces, etc.
54G10 P-spaces
54G15 Pathological spaces
54G20 Counterexamples
54G99 None of the above, but in this section

54Hxx Connections with other structures, applications
54H05 Descriptive set theory (topological aspects of Borel, analytic, projective, etc. sets) [See also 03E15, 04A15, 26A21, 28A05.]
54H10 Topological representations of algebraic systems [See also 22–XX.]
54H12 Topological lattices, etc. [See also 06B30, 06F30.]
54H13 Topological fields, rings, etc. {For algebraic aspects, see 12Jxx, 13Jxx, 16A80.}
54H15 Transformation groups and semigroups [See also 20M20, 22–XX, 57Sxx.]
54H20 Topological dynamics [See also 28Dxx, 34C35, 58Fxx.]
54H25 Fixed-point and coincidence theorems [See also 47H10, 55M20.]
54H99 None of the above, but in this section

54J05 Nonstandard topology [See also 03Hxx.]

55-XX ALGEBRAIC TOPOLOGY

55–01 Elementary exposition, textbooks
55–02 Advanced exposition (research surveys, monographs, etc.)
55–03 Historical (must also be assigned at least one classification number from Section 01)
55–04 Explicit machine computation and programs (not the theory of computation or programming)
55–06 Proceedings, conferences, etc.

55Mxx Classical topics {For the topology of Euclidean spaces and manifolds, see 57N05, 57N10, 57N15.}
55M05 Duality
55M10 Dimension theory [See also 54F45.]
55M15 Absolute neighborhood retracts [See also 54C55, 54F40.]
55M20 Fixed points and coincidences [See also 54H25.]
55M25 Degree, winding number
55M30 Ljusternik-Schnirelman (Šnirel'man) category of a space
55M35 Finite groups of transformations (including Smith theory) [See also 57S17.]
55M99 None of the above, but in this section

55Nxx Homology and cohomology theories [See also 57Txx.]
55N05 Čech types
55N07 Steenrod-Sitnikov homologies
55N10 Singular theory
55N15 K-theory {For algebraic K-theory, see 18F25.}
55N20 Generalized (extraordinary) homology and cohomology theories
55N22 Bordism and cobordism theories, formal group laws [See also 14L05, 57R75, 57R77, 57R85, 57R90.]
55N25 Homology with local coefficients, equivariant cohomology
55N30 Sheaf cohomology [See also 18F20, 32C35, 32L10.]
55N35 Other homology theories
55N40 Axioms for homology theory and uniqueness theorems
55N45 Products and intersections
55N99 None of the above, but in this section

55Pxx Homotopy theory {For simple homotopy type, see 57Q10.}
55P05 Homotopy extension properties, cofibrations
55P10 Homotopy equivalences
55P15 Classification of homotopy type
55P20 Eilenberg-Mac Lane spaces
55P25 Spanier-Whitehead duality
55P30 Eckmann-Hilton duality
55P35 Loop spaces
55P40 Suspensions
55P42 Stable homotopy theory, spectra
55P45 H-spaces and duals
55P47 Infinite loop spaces
55P50 Category and cocategory, etc.
55P55 Shape theory [See also 54C56, 54F43, 55Q07.]
55P60 Localization and completion
55P62 Rational homotopy theory
55P65 Homotopy functors
55P99 None of the above, but in this section

55Qxx Homotopy groups
55Q05 Homotopy groups, general; sets of homotopy classes
55Q07 Shape groups
55Q10 Stable homotopy groups
55Q15 Whitehead products and generalizations
55Q20 Homotopy groups of wedges, joins, and simple spaces
55Q25 Hopf invariants
55Q30 Homotopy groups of triads, n-ads
55Q35 Operations in homotopy groups
55Q40 Homotopy groups of spheres
55Q45 Stable homotopy of spheres
55Q50 The J-morphism
55Q52 Homotopy groups of special spaces
55Q55 Cohomotopy groups
55Q70 Homotopy groups of special types [See also 55N05, 55N07.]
55Q99 None of the above, but in this section

55Rxx Fiber spaces and bundles [See also 18F15, 32Lxx, 46M20, 57R20, 57R22, 57R25.]
55R05 Fiber spaces
55R10 Fiber bundles
55R15 Classification
55R20 Spectral sequences and homology of fiber spaces [See also 55Txx.]
55R25 Sphere bundles and vector space bundles
55R35 Classifying spaces of groups and H-spaces
55R40 Homology of classifying spaces, characteristic classes [See also 57Txx, 57R20.]
55R45 Homology and homotopy of BO and BU; Bott periodicity
55R50 Stable classes of vector space bundles, K-theory {For algebraic K-theory, see 18F25.}
55R55 Fiberings with singularities

55R60 Microbundles and block bundles [See also 57N55, 57Q50.]
55R65 Generalizations of fiber spaces and bundles
55R99 None of the above, but in this section

55Sxx Operations and obstructions
55S05 Primary cohomology operations
55S10 Steenrod algebra
55S12 Dyer-Lashof operations
55S15 Symmetric products, cyclic products
55S20 Secondary and higher cohomology operations
55S25 K-theory operations and generalized cohomology operations
55S30 Massey products
55S35 Obstruction theory
55S36 Extension and compression of mappings
55S37 Classification of mappings
55S40 Sectioning fiber spaces and bundles
55S45 Postnikov systems, k-invariants
55S99 None of the above, but in this section

55Txx Spectral sequences [See also 18G40, 55R20.]
55T05 General
55T10 Serre spectral sequences
55T15 Adams spectral sequences
55T20 Eilenberg-Moore spectral sequences [See also 57T35.]
55T25 Generalized cohomology
55T99 None of the above, but in this section

55Uxx Applied homological algebra and category theory [See also 18Gxx.]
55U05 Abstract complexes
55U10 Semisimplicial complexes
55U15 Chain complexes
55U20 Universal coefficient theorems, Bockstein operator
55U25 Homology of a product, Künneth formula
55U30 Duality
55U35 Abstract homotopy theory
55U40 Topological categories
55U99 None of the above, but in this section

57–XX MANIFOLDS AND CELL COMPLEXES {For complex manifolds, see 32C10.}

57–01 Elementary exposition, textbooks
57–02 Advanced exposition (research surveys, monographs, etc.)
57–03 Historical (must also be assigned at least one classification number from Section 01)
57–04 Explicit machine computation and programs (not the theory of computation or programming)
57–06 Proceedings, conferences, etc.

57Mxx Low-dimensional topology (old 55Axx)
57M05 Fundamental group, presentations, free differential calculus
57M10 Covering spaces
57M12 Special coverings, e.g. branched
57M15 Relations with graph theory [See also 05Cxx.]
57M20 Two-dimensional complexes
57M25 Knots and links in S^3 {For higher dimensions, see 57Q45.}
57M30 Wild knots and surfaces, etc., wild imbeddings
57M35 Dehn's Lemma, sphere theorem, loop theorem, asphericity
57M40 Characterizations of E^3 and S^3 (Poincaré conjecture) [See also 57N12.]
57M99 None of the above, but in this section

57Nxx Topological manifolds
57N05 Topology of E^2, 2-manifolds
57N10 Topology of general 3-manifolds [See also 57Mxx.]
57N12 Topology of E^3 and S^3 [See also 57M40.]
57N15 Topology of E^n, n-manifolds $(3<n<\infty)$
57N17 Topology of topological vector spaces
57N20 Topology of infinite-dimensional manifolds [See also 58Bxx.]
57N25 Shapes [See also 54C56, 54F43, 55P55, 55Q07.]
57N30 Engulfing
57N35 Imbeddings and immersions
57N37 Isotopy and pseudo-isotopy
57N40 Neighborhoods of submanifolds
57N45 Flatness and tameness
57N50 $S^{n-1}\subset E^n$, Schoenflies problem
57N55 Microbundles and block bundles [See also 55R60, 57Q50.]
57N60 Cellularity
57N65 Algebraic topology of manifolds
57N70 Cobordism and concordance
57N75 General position and transversality
57N80 Stratifications
57N99 None of the above, but in this section

57Pxx Generalized manifolds [See also 18F15.]
57P05 Local properties
57P10 Poincaré duality spaces
57P99 None of the above, but in this section

57Qxx PL-topology
57Q05 The general topology of complexes
57Q10 Simple homotopy type, Whitehead torsion, Reidemeister-Franz torsion, etc.
57Q15 Triangulating manifolds
57Q20 Cobordism
57Q25 Comparison of PL-structures: classification, Hauptvermutung
57Q30 Engulfing
57Q35 Imbeddings and immersions
57Q37 Isotopy
57Q40 Regular neighborhoods
57Q45 Knots and links (in high dimensions) {For the low-dimensional case, see 57M25.}
57Q50 Microbundles and block bundles [See also 55R60, 57N55.]
57Q55 Approximations
57Q60 Cobordism and concordance
57Q65 General position and transversality
57Q99 None of the above, but in this section

57Rxx Differential topology {For foundational questions of differentiable manifolds, see 58Axx; for infinite-dimensional manifolds, see 58Bxx.}
57R05 Triangulating
57R10 Smoothing
57R12 Smooth approximations
57R15 Specialized structures on manifolds (spin manifolds, frame manifolds, etc.)
57R20 Characteristic classes and numbers
57R22 Topology of vector bundles and fiber bundles [See also 55Rxx.]
57R25 Vector fields, frame fields, etc.
57R27 Controllability of vector fields on C^∞ and real-analytic manifolds [See also 49E15, 49F15.]
57R30 Foliations; geometric theory
57R32 Classifying spaces for foliations; Gel'fand-Fuks cohomology
57R35 Differentiable mappings
57R40 Imbeddings
57R42 Immersions
57R45 Singularities of differentiable mappings
57R50 Diffeomorphisms
57R52 Isotopy
57R55 Differentiable structures
57R60 Homotopy spheres, Poincaré conjecture
57R65 Surgery and handlebodies
57R67 Surgery obstructions, Wall groups [See also 18F25.]
57R70 Critical points and critical submanifolds
57R75 O- and SO-cobordism
57R77 Complex cobordism (U- and SU-cobordism) [See also 55N22.]
57R80 h- and s-cobordism
57R85 Equivariant cobordism
57R90 Other types of cobordism [See 55N22.]
57R95 Realizing cycles by submanifolds
57R99 None of the above, but in this section

57Sxx Topological transformation groups [See also 20F34, 22–XX, 54H15, 58D05.]
57S05 Topological properties of groups of homeomorphisms
57S10 Compact groups of homeomorphisms
57S15 Compact Lie groups of differentiable transformations
57S17 Finite transformation groups

57S20 Noncompact Lie groups of transformations
57S25 Groups acting on specific manifolds
57S30 Discontinuous groups of transformations
57S99 None of the above, but in this section

57Txx Homology and homotopy of topological groups and related structures
57T05 Hopf algebras [See also 16A24.]
57T10 Homology and cohomology of Lie groups
57T15 Homology and cohomology of homogeneous spaces of Lie groups
57T20 Homotopy groups of topological groups and homogeneous spaces
57T25 Homology and cohomology of H-spaces
57T30 Bar and cobar constructions [See also 18G55, 55Uxx.]
57T35 Applications of Eilenberg-Moore spectral sequences [See also 55R20, 55T20.]
57T99 None of the above, but in this section

58-XX GLOBAL ANALYSIS, ANALYSIS ON MANIFOLDS [See also 32Cxx, 32Fxx, 46-XX, 47Hxx, 53Cxx; for geometric integration theory, see 49F20, 49F22.]
58-01 Elementary exposition, textbooks
58-02 Advanced exposition (research surveys, monographs, etc.)
58-03 Historical (must also be assigned at least one classification number from Section 01)
58-04 Explicit machine computation and programs (not the theory of computation or programming)
58-06 Proceedings, conferences, etc.

58Axx General theory of differentiable manifolds
58A05 Differentiable manifolds, foundations
58A07 Real-analytic and Nash manifolds [See also 32C05.]
58A10 Differential forms
58A12 de Rham theory [See also 14Fxx.]
58A14 Hodge theory [See also 14C30, 14Fxx, 32Cxx.]
58A15 Exterior differential systems (Cartan theory)
58A17 Pfaffian systems
58A20 Jets
58A25 Currents
58A30 Vector distributions (subbundles of the tangent bundles)
58A35 Stratified sets [See also 32Bxx, 58Cxx.]
58A40 Differential spaces
58A99 None of the above, but in this section

58Bxx Infinite-dimensional manifolds
58B05 Homotopy and topological questions
58B10 Differentiability questions
58B12 Questions of holomorphy [See also 32-XX, 46G20.]
58B15 Fredholm structures [See also 47A53.]
58B20 Riemannian, Finsler and other geometric structures [See also 53C20, 53C60.]
58B25 Group structures and generalizations on infinite-dimensional manifolds [See also 22E65, 58D05.]
58B99 None of the above, but in this section

58Cxx Calculus on manifolds; nonlinear operators [See also 47Hxx.]
58C05 Real-valued functions
58C06 Set valued and function-space valued mappings
58C07 Continuity properties of mappings
58C10 Holomorphic maps [See also 32-XX.]
58C15 Implicit function theorems; global Newton methods
58C20 Differentiation theory (Gâteaux, Fréchet, etc.) [See also 26Exx, 46Gxx.]
58C25 Differentiable maps
58C27 Singularities of differentiable maps [See also 14B05, 14E15, 32Bxx, 32C40, 32C45.]
58C28 Catastrophes [See also 57R70, 58Exx.]
58C30 Fixed point theorems [See also 47H10.]
58C35 Integration on manifolds; measures on manifolds [See also 28Cxx.]
58C40 Spectral theory; eigenvalue problems
58C99 None of the above, but in this section

58Dxx Spaces and manifolds of mappings (including nonlinear versions of 46Exx)
58D05 Groups of diffeomorphisms and homeomorphisms as manifolds [See also 22E65, 57Q05.]
58D07 Groups and semigroups of nonlinear operators [See also 17B65, 47Dxx, 47H20.]
58D10 Spaces of imbeddings and immersions
58D15 Manifolds of mappings [See also 54C35.]
58D17 Manifolds of metrics (esp. Riemannian)
58D20 Measures (Gaussian, cylindrical, etc.) on manifolds of maps [See 28Cxx.]
58D25 Equations in function spaces; evolution equations [See also 34Gxx, 35K22, 35R15.]
58D30 Applications (in quantum mechanics (Feynman integrals), relativity, fluid dynamics, etc.)
58D99 None of the above, but in this section

58Exx Variational problems in infinite-dimensional spaces
58E05 Abstract critical point theory (Morse theory, Ljusternik-Schnirelman (Šnirel'man) theory, etc.)
58E07 Abstract bifurcation theory
58E10 Applications to the theory of geodesics (problems in one independent variable)
58E11 Critical metrics
58E12 Applications to minimal surfaces (problems in two independent variables)
58E15 Application to extremal problems in several variables
58E17 Pareto optimality, etc., applications to economics
58E20 Harmonic maps
58E25 Applications to control theory (optimal and nonoptimal)
58E30 Variational principles
58E35 Variational inequalities (global problems)
58E99 None of the above, but in this section

58Fxx Ordinary differential equations on manifolds; dynamical systems (For abstract and topological dynamics, see also 28D10, 34C35, 34C40, 54H20.)
58F05 Hamiltonian and Lagrangian systems; symplectic geometry
58F06 Geometric quantization (applications of representation theory)
58F07 Completely integrable systems (including systems with an infinite number of degrees of freedom)
58F09 Morse-Smale systems
58F10 Stability theory
58F11 Ergodic theory; invariant measures [See also 28Dxx.]
58F12 Structure of attractors (and repellors)
58F13 Strange attractors; chaos and other pathologies
58F14 Bifurcation theory and singularities
58F15 Hyperbolic structures (expanding maps, Anosov systems, etc.)
58F17 Geodesic flows
58F18 Relations with foliations
58F19 Eigenvalue and spectral problems
58F20 Periodic points and zeta functions
58F21 Limit cycles, etc.
58F22 Periodic solutions
58F25 Flows
58F27 Quasiperiodic flows
58F30 Perturbations
58F35 Invariance properties
58F40 Applications
58F99 None of the above, but in this section

58Gxx Partial differential equations on manifolds; differential operators [See also 35-XX.]
58G05 Differential complexes [See also 35Nxx.]; elliptic complexes
58G07 Relations with hyperfunctions
58G10 Index theory and fixed point theorems
58G11 Heat and other parabolic equation methods
58G12 Exotic index theories [See also 46L05, 46L10, 46M20.]
58G15 Pseudodifferential and Fourier integral operators on manifolds
58G16 Hyperbolic equations
58G17 Propagation of singularities; initial value problems

58G20 Boundary value problems
58G25 Spectral problems; spectral geometry; scattering theory
58G30 Relations with special manifold structures (Riemannian, Finsler, etc.)
58G32 Diffusion processes and stochastic analysis on manifolds
58G35 Invariance properties
58G40 Applications
58G99 None of the above, but in this section

58Hxx Pseudogroups and general structures on manifolds
58H05 Pseudogroups [See also 22E65.]
58H10 Cohomology of classifying spaces for pseudogroup structures (Spencer, Gel'fand-Fuks, etc.)
58H15 Deformations of structures [See also 32Gxx, 58G05.]
58H99 None of the above, but in this section

60–XX PROBABILITY THEORY AND STOCHASTIC PROCESSES {For additional applications, see 10Kxx, 62–XX, 90–XX, 92–XX, 93–XX, 94–XX. For numerical results, see 65U05.}

60–01 Elementary exposition, textbooks
60–02 Advanced exposition (research surveys, monographs, etc.)
60–03 Historical (must also be assigned at least one classification number from Section 01)
60–04 Explicit machine computation and programs (not the theory of computation or programming)
60–06 Proceedings, conferences, etc.

60Axx Foundations of probability theory
60A05 Axioms; other general questions
60A10 Probabilistic measure theory {For ergodic theory, see 28Dxx and 60Fxx.}
60A99 None of the above, but in this section

60Bxx Probability theory on algebraic and topological structures
60B05 Probability measures on topological spaces
60B10 Convergence of probability measures
60B11 Probability theory on linear topological spaces [See also 28C20.]
60B12 Limit theorems for vector-valued random variables (infinite-dimensional case)
60B15 Probability measures on groups, Fourier transforms, factorization
60B99 None of the above, but in this section

60C05 Combinatorial probability

60D05 Geometric probability, stochastic geometry, random sets [See also 52A22, 53C65.]

60Exx Distribution theory [See also 62Exx, 62Hxx.]
60E05 Distributions: general theory
60E07 Infinitely divisible distributions; stable distributions
60E10 Characteristic functions; other transforms
60E15 Inequalities (Čebyšev, Kolmogorov, etc.)
60E99 None of the above, but in this section

60Fxx Limit theorems [See also 28Dxx, 60B12.]
60F05 Central limit and other weak theorems
60F10 Large deviations
60F15 Strong theorems [See also 28A65.]
60F17 Functional limit theorems; invariance theorems
60F20 Zero-one laws
60F25 L^p-limit theorems
60F99 None of the above, but in this section

60Gxx Stochastic processes
60G05 Foundations of stochastic processes
60G07 General theory of processes
60G10 Stationary processes
60G12 General second order processes
60G15 Gaussian processes
60G17 Sample path properties
60G20 Generalized stochastic processes
60G25 Prediction theory [See also 62M20.]
60G30 Continuity and singularity of induced measures
60G35 Applications (signal detection, filtering, etc.) [See also 62M20, 94Axx.]
60G40 Stopping times; optimal stopping problems; gambling theory [See also 62L15.]
60G42 Martingales with discrete parameter
60G44 Martingales with continuous parameter
60G46 Martingales and classical analysis
60G48 Generalizations of martingales
60G50 Sums of independent random variables
60G55 Point processes
60G57 Random measures
60G60 Random fields
60G99 None of the above, but in this section

60Hxx Stochastic analysis [See also 58G32.]
60H05 Stochastic integrals
60H10 Stochastic ordinary differential equations [See also 34F05.]
60H15 Stochastic partial differential equations [See also 35R60.]
60H20 Stochastic integral equations
60H25 Random operators and equations
60H99 None of the above, but in this section

60Jxx Markov processes
60J05 Markov processes with discrete parameter
60J10 Markov chains with discrete parameter
60J15 Random walk
60J20 Applications of discrete Markov processes (social mobility, learning theory, industrial processes, etc.)
60J25 Markov processes with continuous parameter
60J27 Markov chains with continuous parameter
60J30 Processes with independent increments
60J35 Transition functions, generators and resolvents [See also 47D05, 47D07.]
60J40 Hunt processes
60J45 Probabilistic potential theory [See also 31–XX.]
60J50 Boundary theory
60J55 Local time and additive functionals
60J57 Multiplicative functionals
60J60 Diffusion processes [See also 58G32.]
60J65 Brownian motion [See also 58G32.]
60J70 Applications of diffusion theory (population genetics, absorption problems, etc.)
60J75 Jump processes
60J80 Branching processes (Galton-Watson, birth-and-death, etc.)
60J85 Applications of branching processes [See also 60K30, 92A10, 92A15.]
60J99 None of the above, but in this section

60Kxx Special processes
60K05 Renewal theory
60K10 Applications (reliability, demand theory, etc.)
60K15 Markov renewal processes, semi-Markov processes
60K20 Applications of Markov renewal processes (reliability, queueing networks, etc.) [See also 90B22, 90B25.]
60K25 Queueing theory [See also 68C15, 90B22.]
60K30 Applications (congestion, allocation, storage, traffic, etc.) [See also 60J80.]
60K35 Interacting random processes, statistical mechanics type models
60K99 None of the above, but in this section

62–XX STATISTICS {For numerical methods, see 65U05.}

62–01 Elementary exposition, textbooks
62–02 Advanced exposition (research surveys, monographs, etc.)
62–03 Historical (must also be assigned at least one classification number from Section 01)
62–04 Explicit machine computation and programs (not the theory of computation or programming)
62–06 Proceedings, conferences, etc.
62–07 Data analysis

62Axx Foundations
62A05 Invariance and group considerations
62A10 The likelihood approach
62A15 The Bayesian approach
62A20 The classical approach
62A25 The structural approach
62A30 The fiducial approach
62A99 None of the above, but in this section

62Bxx Sufficiency
62B05 Sufficient statistics and fields
62B10 Statistical information theory
62B15 Comparison of experiments
62B20 Measure-theoretic results, etc.
62B99 None of the above, but in this section

62Cxx Decision theory [See also 90A05; for game theory, see 90Dxx.]
62C05 General considerations
62C07 Complete class results
62C10 Bayesian problems; characterization of Bayes procedures
62C12 Empirical decision procedures
62C15 Admissibility
62C20 Minimax procedures
62C25 Compound decision problems
62C99 None of the above, but in this section

62D05 Sampling theory, sample surveys

62Exx Distribution theory [See also 60Exx.]
62E10 Characterization and structure theory
62E15 Exact distribution theory
62E20 Asymptotic distribution theory
62E25 Monte Carlo studies
62E30 Formal computational methods (polykays, etc.)
62E99 None of the above, but in this section

62Fxx Parametric inference
62F03 Hypothesis testing
62F04 Small sample properties of tests
62F05 Asymptotic properties of tests
62F07 Ranking and selection
62F10 Point estimation
62F11 Small sample properties of estimators
62F12 Asymptotic properties of estimators
62F15 Bayesian inference
62F25 Tolerance and confidence regions
62F35 Robustness and adaptive procedures
62F99 None of the above, but in this section

62Gxx Nonparametric inference
62G05 Estimation
62G10 Hypothesis testing
62G15 Tolerance and confidence regions
62G20 Asymptotic efficiency
62G25 Quick and easy methods
62G30 Order statistics; empirical distribution functions
62G99 None of the above, but in this section

62Hxx Multivariate analysis [See also 60Exx.]
62H05 Characterization and structure theory
62H10 Distribution of statistics
62H12 Estimation
62H15 Hypothesis testing
62H17 Contingency
62H20 Measures of association (correlation, canonical correlation, etc.)
62H25 Factor analysis and principal components
62H30 Classification and discrimination; cluster analysis [See also 68Gxx.]
62H99 None of the above, but in this section

62Jxx Regression and correlation
62J02 General nonlinear regression
62J05 Linear regression
62J07 Ridge regression; James-Stein estimators
62J10 Analysis of variance and covariance
62J15 Paired and multiple comparisons
62J99 None of the above, but in this section

62Kxx Experimental design [See also 05Bxx.]
62K05 Optimal designs
62K10 Block designs
62K15 Factorial designs
62K99 None of the above, but in this section

62Lxx Sequential methods
62L05 Sequential design
62L10 Sequential analysis
62L12 Sequential estimation
62L15 Optimal stopping [See also 60G40.]
62L20 Stochastic approximation
62L99 None of the above, but in this section

62Mxx Inference from stochastic processes
62M02 Markov processes: hypothesis testing
62M05 Markov processes: estimation
62M07 Non-Markovian processes: hypothesis testing
62M09 Non-Markovian processes: estimation
62M10 Time series, auto-correlation, regression, etc. [See also 90A20.]
62M15 Spectral analysis of time series
62M20 Prediction [See also 60G25.]; filtering [See also 60G35, 93E10, 93E11.]
62M99 None of the above, but in this section

62Nxx Engineering statistics
62N05 Reliability and life testing [See also 90B25.]
62N10 Quality control [See also 90Bxx.]
62N99 None of the above, but in this section

62Pxx Applications [See also 82–XX, 90–XX, 92–XX.]
62P05 Actuarial mathematics
62P10 Biometrics
62P15 Psychometrics
62P20 Econometrics [See also 90Axx.]
62P25 Sociometrics
62P99 None of the above, but in this section

62Q05 Statistical tables

65–XX NUMERICAL ANALYSIS

65–01 Elementary exposition, textbooks
65–02 Advanced exposition (research surveys, monographs, etc.)
65–03 Historical (must also be assigned at least one classification number from Section 01)
65–04 Explicit machine computation and programs (not the theory of computation or programming)
65–06 Proceedings, conferences, etc.

65A05 Tables

65Bxx Acceleration of convergence
65B05 Extrapolation to the limit, deferred corrections
65B10 Summation of series
65B15 Euler-Maclaurin formula
65B20 Poisson formula, etc.
65B99 None of the above, but in this section

65Cxx Numerical simulation {For theoretical aspects, see 68Jxx.}
65C05 Monte Carlo methods
65C10 Random number generation
65C20 Models, numerical methods
65C99 None of the above, but in this section

65Dxx Numerical approximation {Primarily algorithms; for theory, see 41–XX.}
65D05 Interpolation
65D07 Splines
65D10 Smoothing, curve fitting
65D15 Algorithms for functional approximation
65D20 Computation of special functions, construction of tables
65D25 Numerical differentiation
65D30 Numerical integration
65D32 Quadrature and cubature formulas
65D99 None of the above, but in this section

65E05 Numerical methods in complex analysis (potential theory, etc.) {For numerical methods in conformal mapping, see 30C30.}

65Fxx Numerical linear algebra
65F05 Direct methods for linear systems and matrix inversion
65F10 Iterative methods for linear systems [See also 65N20.]
65F15 Eigenvalues, eigenvectors
65F20 Overdetermined systems, pseudoinverses
65F25 Orthogonalization
65F30 Other matrix algorithms
65F35 Matrix norms, conditioning, scaling [See also 15A12, 15A60.]

65F40 Determinants
65F99 None of the above, but in this section

65Gxx Error analysis
65G05 Roundoff error
65G10 Interval and finite arithmetic
65G99 None of the above, but in this section

65Hxx Nonlinear algebraic or transcendental equations
65H05 Single equations
65H10 Systems of equations
65H15 Eigenvalues, eigenvectors
65H99 None of the above, but in this section

65Jxx Numerical analysis in abstract spaces
65J05 General
65J10 Equations with linear operators (do not use 65Fxx)
65J15 Equations with nonlinear operators (do not use 65Hxx)
65J99 None of the above, but in this section

65Kxx Mathematical programming, optimization and variational techniques [See also 49Dxx, 90Cxx, 93–XX.]
65K05 Mathematical programming
65K10 Optimization and variational techniques
65K99 None of the above, but in this section

65Lxx Ordinary differential equations
65L05 Initial value problems
65L07 Numerical investigation of stability of solutions
65L10 Boundary value problems
65L15 Eigenvalue problems
65L20 Stability of numerical methods
65L99 None of the above, but in this section

65Mxx Partial differential equations, initial value problems
65M05 Derivation of finite difference approximations
65M10 Stability and convergence of difference methods
65M15 Error bounds
65M20 Method of lines
65M25 Method of characteristics
65M30 Improperly posed problems
65M99 None of the above, but in this section

65Nxx Partial differential equations, boundary value problems
65N05 Derivation of finite difference approximations
65N10 Stability and convergence of difference methods
65N15 Error bounds
65N20 Solution of difference equations [See also 65F10.]
65N25 Eigenvalue problems
65N30 Finite elements, Rayleigh-Ritz and Galerkin methods, finite methods
65N35 Collocation and related methods
65N40 Methods of lines
65N45 Method of contraction of the boundary
65N99 None of the above, but in this section

65P05 Partial differential equations, miscellaneous problems

65Q05 Difference and functional equations, recurrence relations

65Rxx Integral equations, integral transforms [See also 45Lxx.]
65R10 Integral transforms
65R20 Integral equations
65R99 None of the above, but in this section

65S05 Graphical methods

65T05 Harmonic analysis and synthesis

65U05 Numerical methods in probability and statistics

65V05 Automated algorithms [See also 68C05.]

68–XX COMPUTER SCIENCE (including AUTOMATA) {For papers involving machine computations and programs in a specific mathematical area, see section –04 in that area.}

68–01 Elementary exposition, textbooks
68–02 Advanced exposition (research surveys, monographs, etc.)
68–03 Historical (must also be assigned at least one classification number from Section 01)
68–04 Explicit machine computation and programs (not the theory of computation or programming)
68–06 Proceedings, conferences, etc.

68A05 Computers and computer systems

68Bxx Software
68B05 General theory of programming
68B10 Analysis of programs (schemata, semantics, correctness, etc.)
68B15 Theory of data (filing, etc.)
68B20 Supervisory systems, processing (serial, parallel, multi, structured, time-sharing operating systems)
68B99 None of the above, but in this section

68Cxx Metatheory (excluding automata)
68C01 Formal systems
68C05 Algorithms [See also 03–XX, 65V05.]
68C15 Queueing, scheduling [See also 60K25.]
68C20 Symbolic computation, algebraic computation
68C25 Computational complexity and efficiency of algorithms
68C30 Computable functions, unsolvability
68C40 Turing machines, abstract processors [See also 03D10.]
68C99 None of the above, but in this section

68Dxx Automata [See also 03D05, 18B20, 68F10.]
68D05 General theory
68D15 Linear automata, sequential machines
68D20 Tessellation automata, iterative arrays, cellular structure
68D25 Stochastic and nondeterministic automata
68D27 Playing automata, learning automata [See also 90Dxx, 68Gxx.]
68D30 Algebraic theory of automata [See also 18B20, 20M35.]
68D35 Other types of automata
68D37 Decomposition theory
68D40 Reduction problems
68D45 Realizable functions and regular events
68D50 Experiments, state-assignments
68D90 Transition nets
68D99 None of the above, but in this section

68Exx Discrete mathematics
68E05 Sorting, searching
68E10 Graph theory [See also 05Cxx.]
68E99 None of the above, but in this section

68Fxx Linguistics
68F05 Formal languages, grammars
68F10 Automata in connection with languages [See also 03D05, 18B20, 68Dxx.]
68F15 Stochastic models
68F20 Semantics
68F25 Parsing
68F30 Translation of natural languages
68F99 None of the above, but in this section

68Gxx Artificial intelligence [See also 62H30, 68D27.]
68G05 Learning and adaptive systems
68G10 Pattern recognition, speech recognition
68G15 Theorem proving [See also 03B35.]
68G20 Problem solving
68G99 None of the above, but in this section

68H05 Information retrieval

68Jxx Simulation [See also 65Cxx.]
68J05 Simulation (analog, hybrid, etc.)
68J10 Modeling
68J99 None of the above, but in this section

68K05 Miscellaneous applications of computers

70–XX MECHANICS OF PARTICLES AND SYSTEMS {For relativistic mechanics, see 83A05 and 83C10; for statistical mechanics, see 82–XX.}

70–01 Elementary exposition, textbooks
70–02 Advanced exposition (research surveys, monographs, etc.)
70–03 Historical (must also be assigned at least one classification number from Section 01)
70–04 Explicit machine computation and programs (not the theory of computation or programming)

70–05 Experimental papers
70–06 Proceedings, conferences, etc.

70A05 Axiomatics, foundations

70Bxx Kinematics [See also 53A17.]
70B05 Kinematics of a particle
70B10 Kinematics of a rigid body
70B15 Mechanisms and linkages
70B99 None of the above, but in this section

70Cxx Statics
70C05 Forces, fields
70C10 Potential energy
70C99 None of the above, but in this section

70Dxx Dynamics of a particle [See also 70Hxx.]
70D05 Newtonian dynamics
70D10 Lagrangian dynamics
70D99 None of the above, but in this section

70Exx Dynamics of rigid bodies
70E05 Motion of the gyroscope
70E10 Motion of projectiles and rockets
70E15 Motion of a general rigid body
70E20 Perturbation methods for Euler's equations
70E25 Poinsot method
70E99 None of the above, but in this section

70Fxx Dynamics of a system of particles, including celestial mechanics
70F05 Two-body problem
70F07 Three-body problem
70F10 *n*-body problem
70F15 Celestial mechanics
70F20 Holonomic systems
70F25 Nonholonomic systems
70F30 Impulsive motion
70F35 Collisions
70F99 None of the above, but in this section

70Gxx General representations of dynamical systems [See also 58F05.]
70G05 Riemannian geometry, tensorial methods [See also 53A45, 53A50, 53B20.]
70G10 Generalized coordinates
70G15 Space of events
70G20 Impulse-energy space
70G25 Configuration space
70G30 State space
70G35 Phase space
70G99 None of the above, but in this section

70Hxx Hamiltonian and Lagrangian mechanics [See also 58F05.]
70H05 Hamilton's equations
70H10 Liouville's theorem
70H15 Canonical transformations
70H20 Hamilton-Jacobi equations
70H25 Hamilton's principle
70H30 Other variational principles
70H35 Lagrange's equation of motion
70H99 None of the above, but in this section

70Jxx Linear vibration theory
70J05 Finite degree of freedom systems
70J10 Normal modes of vibrations
70J15 Conservative systems
70J20 Nonconservative systems
70J25 Stability of oscillatory motions
70J99 None of the above, but in this section

70Kxx Nonlinear oscillations
70K05 Phase plane analysis
70K10 Limit cycles
70K15 Ljapunov theorems
70K20 Stability
70K30 Nonlinear resonances
70K99 None of the above, but in this section

70L05 Random vibrations [See also 93Exx.]

70Mxx Orbital mechanics
70M05 Satellite problems
70M10 Orbital stability
70M99 None of the above, but in this section

70N05 Exterior ballistics

70P05 Variable mass, rockets

73–XX MECHANICS OF SOLIDS

73–01 Elementary exposition, textbooks
73–02 Advanced exposition (research surveys, monographs, etc.)
73–03 Historical (must also be assigned at least one classification number from Section 01)
73–04 Explicit machine computation and programs (not the theory of computation or programming)
73–05 Experimental papers
73–06 Proceedings, conferences, etc.

73A05 Axiomatics, foundations

73Bxx Continuum mechanics {For fluids, see 76Axx.}
73B05 Constitutive equations
73B10 Isotropic functionals
73B15 Rotational groups [See also 22Exx.]
73B20 Simple materials
73B25 Multipolar stress theory
73B30 Thermodynamics of solids [See also 73U05; for gases and fluids, see 80–XX.]
73B35 Random materials
73B99 None of the above, but in this section

73Cxx Elasticity {For the biharmonic equation, see 31A30, 31B30; for acoustics, see 76Q05.}
73C02 Classical linear elasticity
73C03 Complex variable techniques
73C05 Stress functions
73C10 Saint-Venant's principle
73C15 Uniqueness theorems
73C20 Strain energy methods
73C25 Thermal stress problems
73C30 Anisotropic bodies
73C35 Mixed boundary value problems [See also 45F05.]
73C40 Nonhomogeneous bodies and inclusions
73C45 Stress concentrations
73C50 Nonlinear elasticity
73C99 None of the above, but in this section

73Dxx Wave propagation in and vibrations of solids
73D05 Impact and explosion problems [See also 76L05.]
73D10 Integral transforms
73D15 Dilatational and shear waves
73D20 Surface waves
73D25 Wave diffraction and dispersion
73D30 Linear vibrations [See also 70Jxx.]
73D35 Nonlinear vibrations [See also 70Kxx.]
73D99 None of the above, but in this section

73Exx Plasticity
73E05 Yield criteria and flow rules
73E10 Method of successive approximations
73E15 Slip-line theory
73E20 Limit analysis
73E25 Creep
73E99 None of the above, but in this section

73Fxx Viscoelasticity
73F05 Creep and relaxation functions
73F10 Correspondence principle
73F15 Time-dependent boundary value problems
73F20 Aging of materials
73F25 Environmental-dependent materials
73F99 None of the above, but in this section

73Gxx Finite deformations
73G05 Finite elasticity
73G10 Strain energy functions
73G15 Finite viscoelasticity
73G20 Metal forming problems
73G99 None of the above, but in this section

73Hxx Stability (linear and nonlinear)
73H05 Buckling
73H10 Dynamic stability
73H99 None of the above, but in this section

73Jxx Aero- and hydroelasticity
73J05 Interaction of aerodynamics and elasticity
73J06 Interaction of hydrodynamics and elasticity
73J10 Vibrations, flutter
73J15 Divergence
73J99 None of the above, but in this section

73Kxx Structural mechanics
73K05 Beams, columns, rods
73K10 Plates, discs
73K12 Vibrations of beams, plates, etc.
73K15 Membranes, shells
73K20 Composite structures and materials
73K25 Finite element methods
73K30 Other numerical methods
73K35 Random excitation
73K40 Optimization
73K99 None of the above, but in this section

73Lxx Theory of shells
73L05 Non-Euclidean geometry, tensorial methods [See also 53A45.]
73L10 Anisotropic shells
73L15 Shell dynamics
73L20 Vibrations of shells
73L99 None of the above, but in this section

73Mxx Fractural mechanics
73M05 Brittle fracture, cracks
73M10 Fatigue
73M15 Ductile fracture
73M20 Material instability
73M99 None of the above, but in this section

73Nxx Geophysical solid mechanics [See also 86–XX.]
73N05 Global dynamics
73N10 Earthquake problems
73N99 None of the above, but in this section

73Pxx Biomechanics of solids
73P05 Mathematical models of biological materials
73P10 Mechanics response
73P99 None of the above, but in this section

73Q05 Soil mechanics

73R05 Electromagnetic elasticity

73Sxx Micromechanics of solids
73S05 Dislocation theory
73S99 Other micromechanics

73T05 Contact problems

73U05 Thermomechanics of solids [See also 73B30.]

76–XX FLUID MECHANICS {For general continuum mechanics, see 73Bxx, or other parts of 73–XX.}

76–01 Elementary exposition, textbooks
76–02 Advanced exposition (research surveys, monographs, etc.)
76–03 Historical (must also be assigned at least one classification number from Section 01)
76–04 Explicit machine computation and programs (not the theory of computation or programming)
76–05 Experimental papers
76–06 Proceedings, conferences, etc.

76Axx Foundations, constitutive equations, rheology [See also 35L65.]
76A02 Foundations
76A05 Non-Newtonian fluids
76A10 Viscoelastic fluids
76A99 None of the above, but in this section

76Bxx Incompressible inviscid fluids, potential theory
76B05 Airfoil theory
76B10 Jets and cavities, cavitation, free-streamline theory, water-entry problems, hydrofoil theory
76B15 Water waves, gravity waves; dispersion and diffraction, nonlinear interaction
76B20 Ship waves
76B25 Solitary and cnoidal waves
76B35 Random waves
76B99 None of the above, but in this section

76Cxx Incompressible inviscid fluids, vorticity flows
76C05 Vorticity flows
76C10 Internal waves
76C15 Atmospheric waves
76C20 Rossby waves
76C99 None of the above, but in this section

76Dxx Incompressible viscous fluids
76D05 Navier-Stokes equations [See also 35Q10.]
76D10 Boundary-layer theory
76D15 Boundary-layer separation and reattachment
76D20 Higher-order effects in boundary layers
76D25 Wakes and jets
76D30 Singular perturbation problems
76D35 Random waves
76D99 None of the above, but in this section

76Exx Hydrodynamic stability
76E05 Stability of parallel flows
76E10 Inertial instability
76E15 Convective instability
76E20 Instability of geophysical and astrophysical flows
76E25 Magnetohydrodynamic and electrohydrodynamic instabilities
76E30 Nonlinear effects
76E99 None of the above, but in this section

76Fxx Turbulence [See also 58F13, 58F27, 60Gxx, 60Jxx.]
76F05 Homogeneous isotropic turbulence
76F10 Shear flows
76F99 None of the above, but in this section

76Gxx General aerodynamics and subsonic flows
76G05 Hodograph methods
76G10 Kármán-Tsien approximation
76G15 Iterative methods
76G20 Free-streamline theory
76G99 None of the above, but in this section

76H05 Transonic flows, limit lines

76Jxx Supersonic flows
76J05 Hodograph methods
76J10 Method of characteristics
76J99 None of the above, but in this section

76K05 Hypersonic flows

76L05 Shock waves and blast waves [See also 73D05.]

76M05 Nonhomentropic flows of compressible fluids

76Nxx Compressible fluids and gas dynamics, general
76N05 Boundary layer theory
76N10 Compressible fluids, general
76N15 Gas dynamics, general
76N99 None of the above, but in this section

76P05 Rarefied gas flows, Boltzmann equation [See also 82A05.]

76Q05 Hydrodynamic sound, acoustics

76Rxx Diffusion and convection [See also 60J60.]
76R05 Forced convection
76R10 Free convection
76R99 None of the above, but in this section

76S05 Flows in porous media; filtration; seepage

76T05 Two-phase and multiphase flows

76U05 Rotating fluids

76V05 Multiphase and stratified fluids

76W05 Magnetohydrodynamics and electrohydrodynamics

76X05 Ionized gas flow in electromagnetic fields; plasmic flow

76Y05 Quantum hydrodynamics and relativistic hydrodynamics [See also 83C55, 85A30.]

76Zxx Biological fluid mechanics
76Z05 Physiological flows
76Z10 Biopropulsion in water and in air
76Z99 None of the above, but in this section

78–XX OPTICS, ELECTROMAGNETIC THEORY {For quantum optics, see 81K05.}

78–01 Elementary exposition, textbooks
78–02 Advanced exposition (research surveys, monographs, etc.)
78–03 Historical (must also be assigned at least one classification number from Section 01)
78–04 Explicit machine computation and programs (not the

theory of computation or programming)
78–05 Experimental papers
78–06 Proceedings, conferences, etc.
78A02 Foundations
78A05 Geometric optics
78A10 Physical optics
78A15 Electron optics
78A20 Space charge waves
78A25 Electromagnetic theory, general
78A30 Electro- and magnetostatics
78A35 Motion of charged particles
78A40 Waves and radiation
78A45 Diffraction, scattering [See also 34E20 for WKB methods.]
78A50 Antennas, wave-guides
78A55 Technical applications
78A57 Mathematically heuristic optics and electromagnetic theory (must also be assigned at least one other classification number in this section)
78A99 Miscellaneous topics

80–XX CLASSICAL THERMODYNAMICS, HEAT TRANSFER {For thermodynamics of solids, see 73B30.}
80–01 Elementary exposition, textbooks
80–02 Advanced exposition (research surveys, monographs, etc.)
80–03 Historical (must also be assigned at least one classification number from Section 01)
80–04 Explicit machine computation and programs (not the theory of computation or programming)
80–05 Experimental papers
80–06 Proceedings, conferences, etc.
80A05 Foundations
80A10 Classical thermodynamics
80A15 Thermodynamics of mixtures
80A20 Heat and mass transfer
80A25 Combustion, interior ballistics
80A30 Chemical kinetics
80A35 Mathematically heuristic classical thermodynamics (must also be assigned at least one other classification number in this section)
80A99 Miscellaneous topics

81–XX QUANTUM MECHANICS
81–01 Elementary exposition, textbooks
81–02 Advanced exposition (research surveys, monographs, etc.)
81–03 Historical (must also be assigned at least one classification number from Section 01)
81–04 Explicit machine computation and programs (not the theory of computation or programming)
81–05 Experimental papers
81–06 Proceedings, conferences, etc.
81Bxx Axiomatics, foundations, philosophy
81B05 General
81B10 Logical foundations of quantum mechanics
81B99 None of the above, but in this section
81Cxx General mathematical topics and methods in quantum mechanics
81C05 Closed and approximate solutions to the Schrödinger, Dirac, Klein-Gordon and other quantum mechanical equations
81C10 Selfadjoint operator theory in quantum mechanics; essential selfadjointness of the Hamiltonian
81C12 Perturbation theory for operators
81C15 Perturbation theory for differential equations
81C20 Probabilistic methods in quantum mechanics
81C30 Feynman integrals and graphs; applications of algebraic topology and algebraic geometry to these problems
81C35 Path integrals
81C40 General group representations motivated by physics but not covered by Section 81Gxx below; representations of concrete classical groups such as SL(n, C), U(p, q), etc. [See also 20C35, 22E70.]
81C99 None of the above, but in this section
81Dxx General quantum mechanics
81D05 Commutation relations
81D10 Bethe-Salpeter equation
81D15 Current algebra
81D20 Broken symmetries
81D25 Covariant wave equations
81D99 None of the above, but in this section
81Exx Quantum field theory
81E05 Axiomatic quantum field theory; operator algebras
81E10 Constructive quantum field theory; models of quantum fields (including Yang-Mills theories)
81E15 Renormalization theory
81E99 None of the above, but in this section
81Fxx Scattering theories
81F05 2-body potential scattering theory [See also 34E20 for WKB methods.]
81F10 n-body potential scattering theory
81F15 S-matrix theory, etc.
81F20 Particle scattering theories
81F30 Dispersion theory, dispersion relations
81F99 None of the above, but in this section
81Gxx Particle physics (this covers all kinds of particles and interactions)
81G05 Strong interaction
81G10 Electromagnetic interaction
81G15 Weak interaction
81G20 Applications of group theory to elementary particles
81G25 Other elementary particle theory
81G30 Applications of group theory to nuclear physics
81G35 Other nuclear physics
81G40 Applications of group theory to atomic physics
81G45 Other atomic physics
81G50 Applications of group theory to molecular physics
81G55 Other molecular physics
81G99 None of the above, but in this section
81H05 Quantum mechanics of many-body systems
81J05 Superconductivity and superfluidity
81K05 Quantum optics
81L05 Quantum electrodynamics
81M05 Relativistic theory
81N05 Mathematically heuristic quantum mechanics (must also be assigned at least one other classification number in this section)

82–XX STATISTICAL PHYSICS, STRUCTURE OF MATTER
82–01 Elementary exposition, textbooks
82–02 Advanced exposition (research surveys, monographs, etc.)
82–03 Historical (must also be assigned at least one classification number from Section 01)
82–04 Explicit machine computation and programs (not the theory of computation or programming)
82–05 Experimental papers
82–06 Proceedings, conferences, etc.
82A05 Mathematical general statistical mechanics
82A15 Mathematical quantum statistical mechanics
82A25 Phase transitions
82A30 Statistical thermodynamics [See also 80–XX.]
82A35 Irreversible thermodynamics [See also 81H05.]
82A40 Kinetic theory of gases
82A42 Random media
82A45 Plasma
82A50 Liquids
82A55 Solids
82A60 Crystals
82A65 Metals
82A67 Lattice statistics
82A70 Transport processes [See also 85A25.]
82A75 Nuclear reactor theory
82A77 Mathematically heuristic statistical physics (must also be assigned at least one other classification number in this section)
82A99 Miscellaneous topics

83–XX RELATIVITY
83–01 Elementary exposition, textbooks
83–02 Advanced exposition (research surveys, monographs, etc.)

83–03 Historical (must also be assigned at least one classification number from Section 01)
83–04 Explicit machine computation and programs (not the theory of computation or programming)
83–05 Experimental papers
83–06 Proceedings, conferences, etc.
83A05 Special relativity
83B05 Observational and experimental questions
83Cxx General relativity
83C05 Einstein's equations
83C10 Equations of motion
83C15 Closed form solutions
83C20 Classes of solutions
83C25 Approximation procedures, weak fields
83C30 Asymptotic procedures (radiation, news functions, etc.)
83C35 Gravitational waves
83C40 Groups of motions, invariance groups, observation laws, etc.
83C45 Quantization of the gravitational field
83C50 Electromagnetic fields
83C55 Hydrodynamics [See also 76Y05.]
83C99 None of the above, but in this section
83D05 Relativistic gravitational theories other than Einstein's
83Exx Unified field theories
83E05 Geometrodynamics
83E10 Asymmetric field theories
83E15 Five- and higher-dimensional theories
83E99 None of the above, but in this section
83F05 Cosmology

85–XX ASTRONOMY AND ASTROPHYSICS {For celestial mechanics, see 70F15.}
85–01 Elementary exposition, textbooks
85–02 Advanced exposition (research surveys, monographs, etc.)
85–03 Historical (must also be assigned at least one classification number from Section 01)
85–04 Explicit machine computation and programs (not the theory of computation or programming)
85–05 Experimental papers
85–06 Proceedings, conferences, etc.
85A04 General
85A05 Galactic and stellar dynamics
85A10 Astronautics
85A15 Stellar structure
85A20 Stellar atmospheres
85A25 Radiative transfer
85A30 Hydrodynamic and hydromagnetic problems [See also 76Y05.]
85A35 Statistical astronomy
85A40 Cosmology {For relativistic cosmology, see 83F05.}
85A45 Radio astronomy
85A99 Miscellaneous topics

86–XX GEOPHYSICS [See also 73Nxx, 76U05, 76V05.]
86–01 Elementary exposition, textbooks
86–02 Advanced exposition (research surveys, monographs, etc.)
86–03 Historical (must also be assigned at least one classification number from Section 01)
86–04 Explicit machine computation and programs (not the theory of computation or programming)
86–05 Experimental papers
86–06 Proceedings, conferences, etc.
86A04 General
86A05 Hydrology, hydrography, oceanography [See also 76B15, 76B20, 76B25, 76C15, 76E20, 76Q05, 76Rxx, 76U05.]
86A10 Meteorology [See also 76Bxx, 76C15, 76E20, 76N15, 76Q05, 76Rxx, 76U05, 76V05.]
86A15 Seismology [See also 73Dxx, 73Fxx, 73Mxx, 73Nxx, 73Q05.]
86A20 Potentials, prospecting [See also 76S05, 76W05.]
86A25 Geo-electricity and geomagnetism [See also 78A25.]
86A30 Geodesy, mapping problems
86A35 Atmospheric physics [See also 76C15, 76C20, 76E20, 76Rxx, 76U05, 76V05.]
86A99 Miscellaneous topics

90–XX ECONOMICS, OPERATIONS RESEARCH, PROGRAMMING, GAMES
90–01 Elementary exposition, textbooks
90–02 Advanced exposition (research surveys, monographs, etc.)
90–03 Historical (must also be assigned at least one classification number from Section 01)
90–04 Explicit machine computation and programs (not the theory of computation or programming)
90–06 Proceedings, conferences, etc.
90Axx Mathematical economics {For econometrics, see 62P20.}
90A05 Decision theory [See also 62Cxx.]
90A06 Preferences
90A07 Theory of group behavior
90A08 Social choice, voting
90A09 Portfolio theory and financial economics
90A10 Utility theory
90A11 Production models
90A12 Price theory
90A14 Equilibrium theory
90A15 Static economic models
90A16 Dynamic economic models
90A17 Multisectoral models
90A19 Statistical models
90A20 Economic time series analysis [See also 62M10.]
90A30 Applications to problems of human society (air pollution, etc.)
90A99 None of the above, but in this section
90Bxx Operations research and management science
90B05 Logistics, inventory, storage
90B10 Flows in networks, deterministic
90B15 Flows in networks, probabilistic
90B20 Highway traffic
90B22 Queueing theory, service models, etc. [See also 60K25.]
90B25 Reliability and maintenance [See also 60K20, 62N05.]
90B30 Production theory
90B35 Scheduling theory
90B40 Search theory
90B99 None of the above, but in this section
90Cxx Mathematical programming {For papers emphasizing calculus of variations or involving abstract spaces, see 49Dxx. For numerical methods, see 65K05.}
90C05 Linear programming
90C06 Large scale linear programming
90C08 Special problems of linear programming (transportation and multi-index problems, etc.)
90C09 Boolean programming
90C10 Integer programming
90C11 Mixed integer programming
90C15 Programming in conditions of uncertainty, stochastic programming
90C20 Quadratic programming
90C25 Convex programming
90C30 Nonlinear programming
90C31 Sensitivity, parametric programming, multi-objective programming
90C32 Fractional programming
90C33 Linear and nonlinear complementarity problems
90C35 Network programming, programming in networks
90C39 Dynamic programming [See also 49Cxx.]
90C40 Markov decision processes; Markov programming and Markov renewal programming
90C48 Programming in abstract spaces
90C50 Applications of mathematical programming
90C99 None of the above, but in this section
90Dxx Game theory [See also 49A45, 68D27.]
90D05 2-person games

90D10 *n*-person games, noncooperative
90D12 *n*-person games, cooperative, solution concepts
90D13 Infinite games
90D15 Multistage games, stochastic [See also 93E05.]
90D20 Multistage games, recursive
90D25 Differential games
90D26 Pursuit and evasion games
90D30 Utility theory [See also 90A10.]
90D35 Decision theory [See also 62Cxx, 90A05.]
90D40 Game theory models [See also 65Cxx, 68Cxx, 68Jxx.]
90D42 Positional and lattice games
90D45 Applications of game theory
90D99 None of the above, but in this section

92–XX BIOLOGY AND BEHAVIORAL SCIENCES

92–01 Elementary exposition, textbooks
92–02 Advanced exposition (research surveys, monographs, etc.)
92–03 Historical (must also be assigned at least one classification number from Section 01)
92–04 Explicit machine computation and programs (not the theory of computation or programming)
92–06 Proceedings, conferences, etc.
92A05 General biology [See also 73–XX, 76–XX, in particular 73Pxx, 76Zxx.]
92A07 Medical applications of biology
92A09 Physiology, biochemistry [See also 76–XX, in particular 76Z10, and 80A30.]
92A10 Genetics
92A15 Population dynamics, epidemiology
92A17 Ecology
92A20 Sociology
92A25 Psychology
92A27 Psychophysics
92A40 Chemistry [See also 80A30, 92A05, 92A09.]
92A90 Other applications

93–XX SYSTEMS THEORY; CONTROL {For optimal control, see 49–XX.}

93–01 Elementary exposition, textbooks
93–02 Advanced exposition (research surveys, monographs, etc.)
93–03 Historical (must also be assigned at least one classification number from Section 01)
93–04 Explicit machine computation and programs (not the theory of computation or programming)
93–06 Proceedings, conferences, etc.

93Axx General
93A05 Axiomatic system theory
93A10 General systems
93A13 Hierarchical systems
93A15 Large scale systems
93A20 Cascaded systems
93A99 None of the above, but in this section

93Bxx Controllability, observability, and system structure
93B05 Controllability
93B07 Observability
93B10 Canonical structure
93B15 Realizability of systems from input-output data
93B17 Transformation
93B20 Minimal systems representations
93B25 Algebraic theory of time-invariant systems
93B30 System identification
93B35 Sensitivity
93B40 Computational methods
93B50 Synthesis problems
93B55 Pole and zero placement problems
93B99 None of the above, but in this section

93Cxx Control systems, guided systems
93C05 Linear
93C10 Nonlinear
93C15 Systems governed by ordinary differential equations
93C20 Systems governed by partial differential equations
93C22 Systems governed by integral equations
93C25 Systems in abstract spaces
93C30 Systems governed by functional relations other than differential or integral equations
93C35 Multivariable systems
93C40 Adaptive
93C45 Time-invariant
93C50 Time-dependent
93C55 Discrete-time
93C57 Sampled-data
93C60 Continuous-time
93C99 None of the above, but in this section

93Dxx Stability
93D05 Ljapunov stability
93D10 Popov-type stability of feedback systems
93D15 Stabilization of systems by feedback
93D20 Asymptotic stability
93D25 Input-output approaches
93D99 None of the above, but in this section

93Exx Stochastic systems and control
93E03 Stochastic systems, general
93E05 Stochastic games, stochastic differential games
93E10 Estimation and detection
93E11 Filtering
93E12 System identification
93E14 Data smoothing
93E15 Stochastic stability
93E20 Optimal stochastic control
93E25 Computational methods
93E99 None of the above, but in this section

94–XX INFORMATION AND COMMUNICATION, CIRCUITS

94–01 Elementary exposition, textbooks
94–02 Advanced exposition (research surveys, monographs, etc.)
94–03 Historical (must also be assigned at least one classification number from Section 01)
94–04 Explicit machine computation and programs (not the theory of computation or programming)
94–06 Proceedings, conferences, etc.

94Axx Communication, information
94A05 Communication theory [See also 60G35.]
94A11 Application of orthogonal functions in communication
94A12 Characterization of signals
94A14 Modulation and demodulation
94A15 Information theory, general [See also 62B10.]
94A17 Measures of information, entropy
94A24 Coding theorems (Shannon theory)
94A29 Source coding
94A34 Distortion theory
94A40 Channel theory
94A50 Theory of questionnaires
94A99 None of the above, but in this section

94Bxx Algebraic theory of error-correcting codes
94B05 Linear codes, general
94B10 Convolutional codes
94B15 Cyclic codes
94B20 Burst-correcting codes
94B25 Combinatorial codes
94B30 Majority codes
94B35 Decoding
94B40 Arithmetic codes
94B45 Prefix, length-variable, comma-free codes
94B50 Synchronization error-correcting codes
94B60 Other types of codes
94B70 Error probability
94B99 None of the above, but in this section

94Cxx Circuits, networks
94C05 Analytic circuit theory
94C10 Switching theory, applications of Boolean algebra
94C15 Applications of graph theory [See also 05Cxx, 68D90, 68E10.]
94C30 Applications of design theory [See also 05Bxx.]
94C99 None of the above, but in this section

94D05 Fuzzy sets and logic (in connection with questions of Section 94) [See also 03B52, 03E72.]

ERRATA AND ADDENDA

Volume 46

#4534: **Dyer, Michael**
The author's first name should be "**Micheal**".

Volume 51

#6805: **Housemoller, Dale**
The author's name should be "**Husemoller, Dale**".

Index
The last two items under the heading **Rudin, Walter** should be attributed to **Rudjak, Ju. B.**

Volume 52

#4035: **Krupnik, N. Ja.; Njagta, V. I.**
The second author's name should be "**Njaga, V. I.**"

Index
The first item under the heading **Krupnik, N. Ja.** refers to a joint paper with Gohberg, I. C.

Volume 55

#10454: **Fujita, Takao**
In the heading the paging should be "48–56".

Index
Under the heading **Moore, Robert L.**, the sentence "See also 25" should be deleted.

Volume 56

#13741: **Nédélec, J. C.**
The integral equation was omitted; cf. MR **58** #19275.

#17619: **Nakanishi, Noboru; Yamawaki, Koichi**
The reviewer's remark is misleading and should be deleted.

Volume 57

#5860: **Länger, Helmut**
The last sentence should read: "The full n-place function algebra over some set S is C-S-maximal if and only if it is not the case that both $n=2$ and the cardinality of S is 2."

#16323: **Gerotto, Giovanni**
The review should be amended as follows:
"As is well known, the theory of affine group schemes and bialgebras (or hyperalgebras) sits at the opposite end of the spectrum from the theory of abelian varieties. Nonetheless the fundamental idea of the former, namely to interpret multiplication of points by means of comultiplication of functions, has been tried on the latter by several authors. The latest such attempt was made by I. Barsotti, who proposed the notion of hyperfields (ipercorpi) in connection with his theory of theta functions in characteristic $p \neq 0$ [Symposia Mathematica, Vol. III (INDAM, Rome, 1968/69), pp. 247–277, Academic Press, London, 1970; MR **46** #1799]. The present author aims at laying an algebraic foundation for the theory of hyperfields. Actual applications of this theory to abelian varieties and theta functions are yet to be made."

#17823: **Adomian, G.; Sibul, Leon H.**
The authors' summary is as follows:
"Conditions are stated for the vanishing of the stochastic bilinear concomitant in the stochastic Green formula used in Adomian's iterative solution for stochastic differential equations."

Volume 58

#1378: **Drboglav, V. V.**
In the paper under review the author points out an error in the paper by Bertolino. In point of fact Bertolino had already corrected the error himself [Mat. Vesnik **13(28)** (1976), no. 1, 1–19; MR **53** #13757].

#4360: **Habetler, G. J.; Kostreva, M. M.**
The review did not cite the correct definition of nondegenerate P-functions introduced by the authors. A P-function f: $\mathbf{R}^n \to \mathbf{R}^n$ is nondegenerate if for any one of the 2^n index sets $I \subset N = \{1, 2, \cdots, n\}$ the function f^I: $\mathbf{R}^n \to \mathbf{R}^n$ defined by $f_i^I(x) = f_i(x)$ for $i \in I$, $f_i^I(x) = x_i$ for $i \in N - I$, is surjective. For such functions the cited theorem is proved about the unique solvability of the generalized complementary problem (1) $x \in \Theta$, $f(x) \in \Theta^* = \Theta$, $x^t f(x) = 0$ for any orthant Θ of $\mathbf{R}^n$. Moreover, for these functions a simple, efficient extension of the solution algorithm of K. G. Murty [Opsearch **11** (1974), no. 2-3, 123–130; MR **56** #12028] to the nonlinear case is formulated and shown to be successful. In addition, further results about principal pivots are proved. The nondegeneracy definition cited in the original review refers to the standard problem (1) with $\Theta = \mathbf{R}^n_+$ and does not lead to such far-reaching results.

#7590: **Dyer, Michael**
The author's first name should be "**Micheal**".

#13059: **Rosen, Ronald H.**
In line 6, for "$K = S^{n-1} \times I/(x,0) \sim (-x,1)$" read "$K = S^{n-1} \times I/(x,0) \sim (r(x),1)$, where r: $S^{n-1} \to S^{n-1}$ is the standard equatorial reflection".

#13486: **Hašimov, Š. A.**
In line 5, for "$h \to \infty$" read "$n \to \infty$".

#13627: **Padé approximants method and its applications to**
The title should read "**Padé approximants method and its application to mechanics**".

#18161: **Osserman, Robert**
The reviewer makes the following correction to the review: "As the author points out to the reviewer, the Pohl-Banchoff formula for plane curves cannot be found in Å. Pleijel's paper. Pleijel proves for convex curves that

$$L^2 - 4\pi A = 4 \int_0^L ds_1 \int_0^L ds_2 \sin^2 \tfrac{1}{2}(\alpha_1 - \alpha_2),$$

where s is the arclength on the curve and α_1, α_2 are the angles of intersection of the curve and the secant through the points s_1, s_2. W. F. Pohl, in a letter to the reviewer dated February 10, 1968, showed that the formula remains true

for C^1 closed plane curves if

$$A = \iint_{E^2} w^2\, dx \wedge dy,$$

where w is the winding number of the curve at the point of integration."

#28115: **Ljubič, Ju. I.**
In line 6, for "$(x^2) = s^2(x)x^{2}$" read "$(x^2)^2 = s^2(x)x^{2}$".

#29888: **Srivastava, H. M. [Srivastava, Hari M.]; Buschman, R. G.**
The title should read **"Convolution integral equations with special function kernels"**.

#33069: **Aladyev, Victor [Aladjev, Victor Z.]**
The author's bracketed name should be **"Aladjev, Viktor"**.

Issue 80a

47073: **Brown, H. I.; Cass, F. P.; Robinson, I. J. W.**
In the title, for "$B/(X)$" read "$B(X)$".

65074: **Evans, D. J. [Evans, Dennis J.]; Hatzopoulos, M.**
The first author's bracketed name should be **"Evans, David J."**

Issue 80c

47039: **Nagnibida, N. I. [Nagnibīda, N. Ī.]; Olīnyk, N. P.**
The first author's bracketed initials should be **"M. Ī."**

Issue 80d

58034: **Bylov, B. F.; Vinograd, R. È.; Lin, V. Ja.; Lokucievsīi, O. V.**
The last author's name should be **"Lokucievskiĭ, O. V."**

Issue 80e

30016: **Shah, S. H.**
The author's name should be **"Shah, S. M."**

35015: **Helffer, B.; Nourrigat, J. F.**
The first paragraph of the review was printed at the end.

Issue 80g

20056: **Deligne, Pierre**
The fifth sentence should read: "The author studies analogous completions of $G(F)^{\sim}$, the inverse image of $G(F)$ in the universal central extension of $G_S = \Pi G_v$ $(v \in S)$: . . . ".

80008: **Evstigneev, V. A.; Jablonskiĭ, G. S.; Bykov, V. I.**
80009: **Haubold, H. J.; John, R. W.**
The printing of these two reviews was corrected by reprinting pages 2811 and 2812 at the end of Issue 80h.

Issue 80i

81055: **Matveev, V. A.; Muradjan, R. M.; Tavhelidze, A. H.**
The last author's initials should be **"A. N."**

REVIEWS IN GRAPH THEORY

Compiled and Edited by William G. Brown

McGILL UNIVERSITY
DEPARTMENT OF MATHEMATICS

This publication is a four-volume compendium of about 9,600 reviews in graph theory published by **Mathematical Reviews** in Volumes 1 through 56, i.e. between 1940 and 1978 inclusive. Reviews were selected from the several sections of **Mathematical Reviews** which were the usual repositories of such items; from the subject lists in **Mathematical Reviews** indexes, where available; and through a systematic perusal of about half of all reviews published by **Mathematical Reviews** during the 39 years under consideration. Every review cited in a selected review was also read, and the process iterated until stable.

A classification scheme containing over 500 categories was developed for the purpose. Every review has been assigned one primary classification and, on the average, one secondary classification. Reviews are reprinted in strict chronological order of **Mathematical Review** numbers in their primary subject area, with a brief citation at each secondary location.

The final volume provides a detailed author index, which can serve as an effective bibliography of the subject.

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